U.S. Department
of Transportation
**Federal Aviation
Administration**

SDR Summary

Service Difficulty Reporting

May 3, 1998 - May 9, 1998

GENERAL AVIATION, ZAC-327

You can improve Air Safety by reporting the problem when you see it!

SECTION

ISSUE: 98-19

U.S. Department of Transportation
Federal Aviation Administration

SDR SUMMARY

General Aviation, ZAC-327

This summary includes domestic (United States) Service Difficulty Reports (SDRs) entered into the data base for aircraft weighing 12,500 lbs. and below. It also includes reports on aeronautical products (engines, propellers, and components), and all helicopters. A separate section for International SDRs for aircraft weighing 12,500 lbs. and under has also been included. Under a data exchange agreement, International SDRs are submitted to the FAA by the Civil Aviation Authority of other countries (currently, Canada - CAN, and Australia - AUS). All reports are sorted by aircraft make, model group (basic model), and Joint Aircraft System/Component (JASC) code. Within each aircraft model group, the specific model shown may vary, but similar types of reports will be grouped together and listed in ascending order by their JASC code. Each field contains all information submitted to the FAA. Some fields are not included in order to make the summary easier to read. Additional information may be obtained by referring to the "operator control number." Send your request to the Aviation Data Systems Branch, AFS-620 at the address or phone below.

The Regulatory Support Division (AFS-600) has established a "HomePage" on the Internet through which the same information is available. There is a large quantity of other information available through the AFS-600 HomePage such as the most current SDR system codes (i.e., Joint Aircraft System\Component Codes). The SDR Question and Answer Section of the Summary will also be transferred to the AFS-600 HomePage to simplify the process of preparing the SDR Summaries in the PDF format each week. There are "hot buttons" to take you to other locations and sites where FAA Flight Standards Service Information is available. The AFS-600 "HomePage" address is:

http://www.mmac.jccbi.gov/afs/afs600

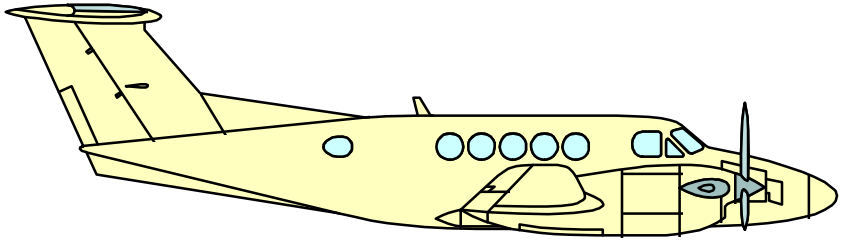
"The Service Difficulty Reports in this publication are derived from unverified information submitted by the aviation community without FAA verification for accuracy. The number of SDRs submitted is not an indication of the mechanical reliability or fitness of an airline or individual operator, and the information should not be used as such."

Comments are welcomed and may be directed to:

Federal Aviation Administration
Aviation Data Systems Branch, AFS-620
P.O. Box 25082
Oklahoma City, OK 73125-5029
Phone: (405) 954-4171, Fax: (405) 954-4748

Your continued participation is essential and is an integral part of ensuring aviation safety. Thank you for supporting the Service Difficulty Program! If you have any questions regarding this special notice you can contact John Jackson at (405) 954-6486, or Jim Gillespie at (405) 954-1141, or Blake McDonald at (405) 954-0307 in the Aviation Systems Branch (AFS-620). Their E-mail addresses are:

john_e_jackson@mmacmail.jccbi.gov **james_gillespie@mmacmail.jccbi.gov** **blake_mcdonald@mmacmail.jccbi.gov**



SIGNIFICANT OCCURRENCE REPORT

U.S. Department
of Transportation
Federal Aviation Administration

THE SIGNIFICANT OCCURRENCE REPORT

The Significant Occurrence Report is a compilation all of the star bordered reports that appear in the General Aviation Service Difficulty Report (SDR) Summary, ZAC-327. The Significant Occurrence Report is used to highlight industry problem areas to field inspectors and the aviation public.

Limited analysis is performed by the Aviation Data Systems Branch, AFS-620 during the preparation of the "Significant Occurrence Report", which is generated each week and is included in the front of the Air Carrier SDR Summary. Significant Reports are hand selected by AFS-620's inspectors based on the individual merit of each report. The criteria for selection includes, but is not limited to, items that indicate high failure rates; items related to accidents or incidents; or design or maintenance failures which may affect the safe operation of the aircraft.

In some cases, this limited analysis of SDR data leads to the preparation of information bulletins which are routed to the appropriate product certification office for further investigation of the problem. The end result may be the issuance of an airworthiness directive (AD) by the Aircraft Certification Service (AIR) if warranted.

The Significant Occurrence Report (section I) of the weekly SDR Summary is not intended to be a summary of all significant events and should not be used as such. We recommend that you review further the applicable sections of the SDR summary that may be of interest.

GENERAL AVIATION SIGNIFICANT OCCURRENCE REPORT

ATA OPER	REG. NO SERIAL NO	ACFT MAKE ACFT MODEL	ENG MAKE ENG MDL	PROP MAKE PROP MDL	COMP MFG COMP MDL	PART NAME PART NUMBER	PART COND PART LOC.	TT TSO	DIFF. DATE OPER CONT NO
6220	911RX	AGUSTA				DAMPER	WORN	512	6/30/94
	10017	A109K2				1090101063	M/R		94ZZZX4572
*****	DURING 600-HOUR INSPECTION, DAMPER ROD END FOUND TO HAVE PLAY, NO PLAY ALLOWED. A REPLACEMENT DAMPER WAS INSTALLED.								
7414	247RJ	AMTRMO	AMTRVW			DRIVE COUPLING	FAILED		4/17/98
	999	SONERAI2	VW2200VOLKS				ENGINE MAGNETO		98ZZZX1697
*****	THE CAST ALUMINUM MAGNETO DRIVE COUPLING WHICH IS KEYED TO THE FLYWHEEL BROKE INTO FOUR PIECES. THE RESULTANT FRICTION MELTED AND FUSED A PORTION OF THE BROKEN PIECES OF THE COUPLING TO THE STATIONARY CROSS MEMBER ENGINE MOUNT. THIS FAILURE OF THE MAGNETO COUPLING RESULTED IN THE FAILURE OF THE ENGINE DURING CRUISE AND ULTIMATELY THE ACCIDENT WHICH DESTROYED THE AIRCRAFT AND INJURED THE PILOT. THE COUPLING BROKE AT THE KEYWAYS AND SHOWED EVIDENCE OF PRE-EXISTING CRACKS POSSIBLY CASTING FLAWS. SUBMITTER RECOMMENDED THE MAGNETO DRIVE COUPLING BE MILLED FROM A SOLID PIECE OF HIGH GRADE ALUMINUM AND ALL EDGES BE RADIUSED TO PREVENT CRACKING.								
3418	163SP	BEECH				LIFT DETECTOR	SHORTED	219	11/21/97
RT2R	TE872	E55				1513	SWITCH		97ZZZX5114
*****	AIRCRAFT WAS ON RAMP AFTER LANDING IN WET SNOW. WITH ADDITIONAL SNOW ACCUMULATING ON THE AIRCRAFT, THE STALL WARNING HORN BEGAN TO SOUND. PILOT SILENCED HORN WITH CIRCUIT BREAKER AND ADVISED MAINTENANCE. LIFT DETECTOR WAS FOUND SHORTED INTERNALLY. AFTER EXTERNAL HEATING OF THE LIFT DETECTOR TO REMOVE MOISTURE, FUNCTION CHECKS WERE NORMAL. SUBMITTER RECOMMENDS MANUFACTURER USE ENVIRONMENTALLY SEALED MICROSWITCH IN THE LIFT DETECTOR ASSEMBLY TO AVOID FALSE STALL INDICATIONS.								
2730	6645K	BEECH				TORQUE TUBE	CRACKED		2/26/98
EHHR	U209	C99				115610010325	ELEVATOR		98ZZZX1634
*****	ELEVATOR TORQUE TUBE ASSY, P/N 115610010325, INSPECTED PER SB 2145 (RECURRING) DATED APRIL, 1986. AIRCRAFT HISTORY INDICATES NUMEROUS REPLACEMENTS DUE TO CRACKS IN SUPPORT ASSY, P/N 1156100181, OR TORQUE TUBE, P/N 11510010325.								
2730	6656N	BEECH				SUPPORT	CRACKED	702	2/26/98
EHHR	U213	C99			115610010325	1156100181	ELEV TORQ TUBE		98ZZZX1635
*****	ELEVATOR TORQUE TUBE SUPPORT IS INSPECTED EACH 1,000 HOUR RECURRING PER SB 2145, DATED APRIL, 1986. AIRCRAFT HISTORY INDICATES NUMEROUS REPLACEMENTS DUE TO CRACKS OF SUPPORT ASSY, P/N 115610181 OR TORQUE TUBE, P/N 115610010325.								
7261	108W	BELL	ALLSN			TUBE	CHAFED	2100	3/12/98
	52034	206L4	250C30P			23058110A	SCAVENGE OIL		98ZZZX1701
*****	WHILE REMOVING RENTAL ENGINE AND TRANSFERRING HARD LINE P/N 23058110-A FROM RENTAL ENGINE TO ORIGINAL ENGINE, SEVERE CHAFING NOTED UNDER ADEL CLAMP. THIS IS SCAVENGE OIL LINE FROM BOTTOM OF COMPRESSOR TO THE N1 SIDE OF GEARBOX. ABRASIVE DUST AND AIRBORNE DIRT CREEPS IN BETWEEN HARD RUBBER ADEL CLAMP AND OIL LINE AND CHAFES OR WEARS OIL LINE TO THE POINT OF FAILURE. THE NEED EXISTS FOR CLAMPING DEVICES THAT WOULD ELIMINATE THIS CHAFING CONDITION. IN THE MEANTIME, INSPECTION UNDER CLAMPED AREAS IS PRUDENT TO AVOID AN UNSUSPECTED FAILURE.								
2810	3799S	CESSNA				TANK	BROKEN WELD	5033	4/22/98
	17250999	172E				05260074	BAFFLE		98ZZZX1651
*****	WHILE MOVING AIRCRAFT A CLICKING SOUND WAS HEARD. AFTER LOOKING IN THE GAS CAP, A LARGE PART WAS FOUND SLIDING AROUND IN FUEL TANK. AFTER A CLOSER LOOK, FOUND BROKEN WELDS ON INTERNAL RIB OR BAFFLE. CAUSE WAS FUEL MOVEMENT IN TANK, AND RIB WAS ONLY WELDED ON ONE SIDE OF RIB. IF WELDED ON BOTH SIDES, IT MAY HAVE NOT BROKEN LOOSE. IF THE RIB WOULD STICK UNDER FUEL GAUGE, FLOAT COULD INDICATE MORE FUEL THAN WAS IN TANK.								
3211	6360D	CESSNA				BOLT	FAILED	9401	3/19/98
VT3R	17272746	172N				S21381	LT MLG MOUNT		98ZZZX1669
*****	DURING ROLL-OUT, PILOT LOST DIRECTIONAL CONTROL AND AIRCRAFT VEERED OFF RUNWAY INTO THE DIRT. AFTER CONTACTING UNEVEN TERRAIN, THE LT MLG STRUT COLLAPSED AFT CAUSING DAMAGE TO LT MLG FAIRINGS, FUSELAGE, AND LT STABILIZER/ELEVATORS. INSPECTION SHOWED THE P/N S2138-1 BOLT HAD BROKEN INSIDE STRUT ALLOWING STRUT TO ROTATE AFT. METALLURGICAL ANALYSIS DETERMINED THE BOLT WAS PREVIOUSLY CRACKED. SUBMITTER RECOMMENDED A SAFE LIFE LIMIT BE ESTABLISHED.								

ATA OPER	REG. NO SERIAL NO	ACFT MAKE ACFT MODEL	ENG MAKE ENG MDL	PROP MAKE PROP MDL	COMP MFG COMP MDL	PART NAME PART NUMBER	PART COND PART LOC.	TT TSO	DIFF. DATE OPER CONT NO
3252	5331V	CESSNA				BARREL	FAILED		11/1/97
	172RG0506	172RG				14421121	SHIMMY DAMPENER		97ZZZX5129
*****	AIRCRAFT WAS BROUGHT TO MAINTENANCE AFTER A TRAINING FLIGHT WITH REPORT OF A SEVERE NOSE WHEEL VIBRATION. AN INSPECTION REVEALED THAT THE END OF THE SHIMMY DAMPENER BARREL CLOSEST TO THE SERVICE HOLE WAS BROKEN OFF. THE OUTER RETAINING LINE AND BEARING HEAD WERE MISSING.								
8010	9898G	CESSNA				SOLENOID	FAILED	2445	4/19/98
	17259798	172L				S19911	STARTER		98ZZZX1678
*****	WHEN AIRCRAFT MASTER SWITCH WAS TURNED ON THE STARTER ENGAGED CAUSING THE PROPELLER TO TURN. THE SOLENOID P/N S-199-1 WAS REMOVED AND OPENED UP. WATER, RUST, AND CORROSION WERE FOUND. THIS CAUSED THE SOLENOID TO REMAIN IN THE CLOSED POSITION. THIS CONDITION IS A SERIOUS SAFETY CONDITION AND COULD CAUSE INJURY OR DEATH. A NEW SOLENOID WAS INSTALLED, IT WAS SEALED WITH EPOXY PRIOR TO INSTALLATION TO PREVENT WATER OR MOISTURE FROM ENTERING IT. THE LOCATION OF THE SOLENOID IN THE COWLING ALLOWS RAIN TO ENTER THE UNIT.								
7120	7518M	CESSNA				BRACKET	CRACKED		10/17/97
BX4R	55818	175				05131329	ENG MT ATTACH		97ZZZX5123
*****	ALL FOUR ENGINE MOUNT BRACKETS ON THE FORWARD END OF THE ENGINE MOUNT STRINGERS WERE CRACKED AND HOLE AREA BENT OUT. THIS AREA BULGED OUT AROUND BOLT HOLE. AIRCRAFT HAS LYCOMING 180 HP MOD.								
3211	8655T	CESSNA				U-BOLT	FAILED	4450	4/21/98
	52555	182C				0541153	LT MLG		98ZZZX1673
*****	DURING 100-HOUR INSPECTION, ONE LEG OF THE U-BOLT ON THE LT MAIN GEAR LEG WAS FOUND BROKEN IN THE THREAD AREA. SUBMITTER SUSPECTS IT WAS DUE TO FATIGUE. A CLOSER LOOK AT THESE BOLTS DURING INSPECTION WOULD BE IN ORDER.								
7810	335PC	CESSNA				EXHAUST STACK	WORN		3/18/98
	3350053	335				991030130	LT ENG INBD		98ZZZX1662
*****	DURING A ROUTINE ENGINE CHANGE, THE EXHAUST COMPONENTS WERE INSPECTED AND THE LEFT ENGINE, INBOARD EXHAUST STACK (ELBOW) WAS FOUND WITH 2 LARGE HOLES CAUSED BY CONTACT FROM THE HEAT SHIELDS MOUNTED ABOVE THE ELBOW. THE HEAT SHIELDS ALSO HAD HOLES IN THEM AND WERE BURNED BY THE ESCAPING EXHAUST GASSES. ROUTED DIRECTLY ABOVE THE HEAT SHIELDS IS THE MAIN WIRE BUNDLE CONTAINING ALL NECESSARY WIRING FROM THE LEFT ENGINE. SEVERAL WIRES SHOWED SIGNS OF HEAT DAMAGE TO THE INSULATION AND ONE WIRE WAS BURNED COMPLETELY IN HALF.								
3233	310AV	CESSNA				STUD	FAILED		4/1/98
GMNR	5500028	550				65412045	MLG ACTUATOR		98ZZZX1692
*****	IN PERFORMING 10,000-HOUR MLG INSPECTION AND UPON INSTALLING NUT ON STUD, STUD SHEERED IN HALF AT BASE OF THREADED AREA ALLOWING ACTUATOR TO SEPARATE FROM LANDING GEAR. AIRCRAFT WAS ON JACKS. UPON INSPECTION OF STUD, DETERMINED IT WAS CRACKED AND CORRODED.								
3213	2750K	LUSCOM				GEAR LEG	FAILED	1710	4/10/98
	5477	8A				0831192	RT MLG		98ZZZX1659
*****	CORROSION INTERNALLY. FRACTURE ABOVE WELD BELOW BRAKE PULLEY. TOTAL GEAR FAILURE ON RIGHT GEAR ON LANDING. SEE LUSCOMBE NEW LETTER NR 113.								
2710	261CB	MOONEY				CONTROL ROD	RUSTED	3967	1/15/98
EA6R	250391	M20K				730048001	RT AILERON		98ZZZX1698
*****	DURING ANNUAL INSPECTION NOTED AILERON ROD RUSTY. UPON FURTHER INSPECTION, FOUND ROD RUSTED TO THE EXTENT IT COULD BE SEPARATED IN TWO WITH LIGHT HAND PRESSURE. SUBMITTER RECOMMENDED INSPECTING AT EACH ANNUAL.								
3230	60DC	PIPER				BELLCRANK	CRACKED	5261	3/31/98
BONR	600797806123	PA60600				400088001	LT MLG WELL		98ZZZX1695
*****	DURING ROUTINE TRAINING FLIGHT, TOWER REPORTED THE LT MLG INBOARD DOOR REMAINED OPEN AFTER LANDING GEAR EXTENSION. AIRCRAFT LANDED WITHOUT INCIDENT. INSPECTED AIRCRAFT AND FOUND LT MLG BELLCRANK P/N 400088-001 BROKEN. THIS ALLOWED SEQUENCE VALVE TO OPEN CAUSING MLG DOOR TO FREEFALL OPEN. THE SAME PROBLEM OCCURRED IN 1994 TO RT BELLCRANK WITH 4,266.3 HRS TT. THE REPLACEMENT LT BELLCRANK IS SUBSTANTIALLY IMPROVED OVER ORIGINAL PART. SUBMITTER RECOMMENDED A SERVICE BULLETIN TO REQUIRE FREQUENT INSPECTIONS OF ORIGINAL PARTS.								

ATA OPER	REG. NO SERIAL NO	ACFT MAKE ACFT MODEL	ENG MAKE ENG MDL	PROP MAKE PROP MDL	COMP MFG COMP MDL	PART NAME PART NUMBER	PART COND PART LOC.	TT TSO	DIFF. DATE OPER CONT NO
2710	9729W	PIPER				SUPPORT	CRACKED		4/1/98
	2823207	PA28140				6210201	AIL BELLCRANK		98ZZZX1677
*****	AILERON BELLCRANK SUPPORTS BROKEN AT FORWARD ENDS OF SUPPORT. THE DAMAGE HAS TO BE FOUND WITH A MIRROR. THE BELLCRANK SUPPORTS LOOK SATISFACTORY LOOKING IN THE ACCESS HOLES ORIGINALLY INSTALLED BY PIPER. THE FRONT FLANGE OF THE AILERON BELLCRANK SUPPORT BRACKETS FRONT BOLT HOLES FOR MOUNTING CRACKED COMPLETELY FROM ONE FLANGE SUPPORT EDGE TO THE OTHER. SUSPECT CAUSED BY HIGH WINDS AND NO AILERON LOCKING PROVISION ON THIS AIRCRAFT. THE DAMAGE IS HIDDEN BY THE WAY THE SUPPORTS' FLANGE IS BENT UP ON THE OUTBOARD EDGE. THE INBOARD FLANGE THAT IS BOLTED AND RIVETED TO THE RIB IS THE AREA THAT CRACKS.								
3213	7732Y	PIPER				AXLE NUT	FAILED		3/26/98
	30821	PA30				MS20364624C	NLG		98ZZZX1672
*****	AXLE NUT P/N MS 20364-624C (PIPER P/N 752-482) WORKED LOOSE AND FELL OFF OF NOSE GEAR AXLE TIE BOLT P/N 20854-00. THIS NUT IS ADJUSTED ONLY TIGHT ENOUGH TO REMOVE FREE PLAY ON NOSE WHEEL BEARINGS. IT IS NOT TORQUED TO A SPECIFIC TORQUE. WHEN NUT CAME OFF, THIS ALLOWED TIE BOLT TO SLIDE OUT OF NOSE GEAR TO THE SIDE. TIE BOLT THEN JAMMED NOSE GEAR IN THE UP POSITION. AFTER 1 HR OF TRYING TO DISLODGE L/G, ACFT LANDED WHEELS UP WITH NO INJURIES AND MINOR DAMAGE. SUBMITTER RECOMMENDED REPLACING ANY AXLE TIE BOLT WITH THREAD WEAR AND INSTALL NEW LOCKNUTS AND A SLIGHTLY LONGER TIE BOLT ALLOWING AN363C NUT (NOT THIN TYPE) OR DRILLED TIE BOLT FOR CASTLE NUT AND COTTER PIN ARRANGEMENT. TT ON ACFT IS 7,300 HRS.								
6320	1546G	SKRSKY				SPUR GEAR	FRACTURED		4/27/98
HEER	760076	S76A				7635109032047	M/R GEARBOX		98ZZZX1706
*****	INVESTIGATION INTO A SERIES OF CHIP DETECTOR LIGHTS ON THE MAIN GEARBOX REVEALED THE SPUR GEAR HAD FRACTURED IN THREE PLACES. THE WEB OF THE GEAR HAD TWO SEPARATE FRACTURES AND THE SHAFT OF THE GEAR HAD ONE FRACTURE. TWO OF THE PINS (P/N HL12VLJ-8-5/6) THAT SECURE THE SPUR GEAR ASSEMBLY TOGETHER HAD ALSO SHEARED. MANY OTHER PINS SHOWED SIGNS OF WORKING. THE MAIN GEARBOX WAS OVERHAULED 227 OPERATING HOURS PRIOR TO THIS OCCURRENCE. THE SPUR GEAR IS NOT A LIFE LIMIT PART; THEREFORE, HISTORICAL RECORDS ARE NOT REQUIRED AND THE TOTAL TIME IN SERVICE OF THE GEAR IS NOT KNOWN AT THIS TIME.								
5210	51TB	SOCATA				GUIDE	FAILED	1628	3/19/98
FO6R	488	TB20TRINIDAD				TB1025042102	RT DOOR FWD CAB		98ZZZX1668
*****	WHILE TROUBLESHOOTING AN AIR LEAK ON THE RT DOOR, DISCOVERED THE FWD DOOR LATCH WAS NOT OPERATING DUE TO A BROKEN LOWER LATCH GUIDE. FURTHER INVESTIGATION REVEALED THE BROKEN LATCH GUIDE WAS A P/N TB1025042100 GUIDE MADE OF PLASTIC INSTEAD OF THE PROPER P/N TB1025042102 GUIDE MADE OF MACHINED ALUMINUM. A CHECK OF THE OTHER DOOR LATCHES ON THE RT AND LT DOORS ALSO FOUND IMPROPER P/N GUIDES INSTALLED. THERE WAS NO RECORD OR INDICATIONS THAT THE GUIDES HAD BEEN PREVIOUSLY REPLACED. RECOMMEND INSPECTION OF DOOR LATCHES AND REPLACEMENT OF IMPROPER PARTS.								

(End of GENERAL AVIATION SIGNIFICANT OCCURRENCE REPORT)

Run Date: 15-May-98

FEDERAL AVIATION ADMINISTRATION

SIGNIFICANT OCCURRENCE REPORT INDEX

Showing Specific Part Numbers and Aircraft Model by Year

FOR THE PERIOD OF: 5/3/98 To 5/9/98

PART NUMBER / PART NAME	ACFT MODEL	TOTAL	YEAR 1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998
0470														
NUT	MINI500	**1**	-	-	-	-	-	-	-	-	-	-	-	1
TOTAL of # 0470		**1**	-	-	-	-	-	-	-	-	-	-	-	1
05131329														
BRACKET	175	**1**	-	-	-	-	-	-	-	-	-	-	-	1
TOTAL of # 05131329		**1**	-	-	-	-	-	-	-	-	-	-	-	1
05260074														
TANK	172D	**1**	-	-	-	-	-	-	1	-	-	-	-	-
	172E	**1**	-	-	-	-	-	-	-	-	-	-	-	1
	172K	**1**	-	-	-	-	-	-	1	-	-	-	-	-
TOTAL of # 05260074		**3**	-	-	-	-	-	-	2	-	-	-	-	1
0541153														
U BOLT	172	**1**	-	-	-	-	-	1	-	-	-	-	-	-
	172A	**1**	-	-	-	-	-	-	-	-	-	-	1	-
	172K	**1**	-	-	-	-	1	-	-	-	-	-	-	-
	182A	**1**	-	-	-	-	-	-	-	-	-	-	-	1
U-BOLT	172	**2**	-	-	-	-	1	1	-	-	-	-	-	-
	172B	**1**	-	-	-	-	1	-	-	-	-	-	-	-
	172C	**1**	-	-	-	1	-	-	-	-	-	-	-	-
	172D	**1**	-	-	-	-	-	1	-	-	-	-	-	-
	172F	**1**	-	-	-	-	1	-	-	-	-	-	-	-

PART NUMBER / PART NAME	ACFT MODEL	TOTAL	YEAR 1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998
0541153														
U-BOLT	172G	**1**	-	-	-	-	-	-	-	-	-	1	-	-
	172H	**1**	-	-	-	-	-	-	1	-	-	-	-	-
	172K	**2**	-	-	-	-	1	-	-	-	-	1	-	-
	175	**1**	-	-	-	1	-	-	-	-	-	-	-	-
	182A	**3**	-	-	-	-	1	-	1	-	-	1	-	-
	182B	**1**	-	-	-	-	-	-	-	-	-	-	1	-
	182C	**1**	-	-	-	-	-	-	-	-	-	-	-	1
TOTAL of # 0541153		**20**	-	-	-	2	6	3	2	-	-	3	2	2
0831192														
GEAR LEG	8A	**1**	-	-	-	-	-	-	-	-	-	-	-	1
TOTAL of # 0831192		**1**	-	-	-	-	-	-	-	-	-	-	-	1
1090101063														
DAMPER	A109K2	**1**	-	-	-	-	-	-	-	-	-	-	-	1
TOTAL of # 1090101063		**1**	-	-	-	-	-	-	-	-	-	-	-	1
115610010325														
CASTING	100BEECH	**1**	-	-	-	-	-	-	-	-	-	-	-	1
SUPPORT	B100	**1**	-	-	-	1	-	-	-	-	-	-	-	-
TORQUE TUBE	100BEECH	**1**	-	-	-	-	-	-	-	-	-	-	1	-
	99	**1**	-	-	-	-	-	-	-	-	-	-	1	-
	99	**1**	-	-	-	-	-	-	-	1	-	-	-	-
	A100	**1**	-	-	-	1	-	-	-	-	-	-	-	-
	B100	**2**	-	-	-	-	-	-	1	-	1	-	-	-
	B99	**1**	-	-	-	1	-	-	-	-	-	-	-	-

PART NUMBER / PART NAME	ACFT MODEL	TOTAL	YEAR 1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998
115610010325														
TORQUE TUBE	C99	**1**	-	-	-	1	-	-	-	-	-	-	-	-
	C99	**3**	-	-	-	-	-	-	-	-	-	1	1	1
TORQUE TUBE ASSY	100BEECH	**1**	-	-	-	-	-	-	-	-	-	-	1	-
TORUQE TUBE	A100	**1**	-	-	-	-	-	-	-	-	-	-	1	-
TOTAL of # 115610010325 - - - - - - - - - - - - - -		**15**	-	-	-	4	-	-	1	1	1	1	5	2
1156100181														
CASTING	100BEECH	**1**	-	-	-	-	-	1	-	-	-	-	-	-
CONTROL TUBE	99	**1**	-	-	-	-	-	-	-	-	-	-	1	-
SUPPORT	100BEECH	**1**	-	-	-	-	-	-	-	-	-	-	1	-
	100BEECH	**2**	-	-	-	-	-	-	1	-	-	-	1	-
	A100	**1**	-	-	-	-	-	-	-	-	-	-	-	1
	C99	**1**	-	-	-	-	-	-	-	-	-	-	-	1
TOTAL of # 1156100181 - - - - - - - - - - - - - - - -		**7**	-	-	-	-	-	1	1	-	-	-	3	2
14421121														
BARREL	172RG	**1**	-	-	-	-	-	-	-	-	-	-	-	1
TOTAL of # 14421121 - - - - - - - - - - - - - - - -		**1**	-	-	-	-	-	-	-	-	-	-	-	1
1513														
LIFT DETECTOR	E55	**1**	-	-	-	-	-	-	-	-	-	-	-	1
TOTAL of # 1513 - - - - - - - - - - - - - - - -		**1**	-	-	-	-	-	-	-	-	-	-	-	1
214010103115														
SPINDLE	214ST	**1**	-	-	-	-	-	-	-	-	-	-	-	1
TOTAL of # 214010103115 - - - - - - - - - - - - - -		**1**	-	-	-	-	-	-	-	-	-	-	-	1
23058110A														
TUBE	206L4	**1**	-	-	-	-	-	-	-	-	-	-	-	1
TOTAL of # 23058110A - - - - - - - - - - - - - - - -		**1**	-	-	-	-	-	-	-	-	-	-	-	1

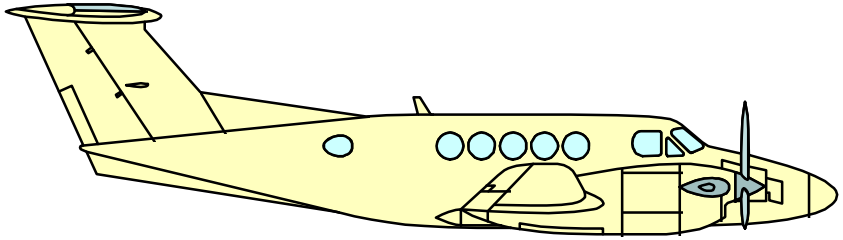
PART NUMBER / PART NAME	ACFT MODEL	TOTAL	YEAR 1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998
2607003468														
LINE	35A	**1**	-	-	-	-	-	-	-	-	-	-	-	1
TOTAL of # 2607003468		**1**	-	-	-	-	-	-	-	-	-	-	-	1
400088001														
BELLCRANK	PA60600	**1**	-	-	-	-	-	-	-	-	-	-	-	1
	PA60600A	**1**	-	-	-	-	-	-	-	-	-	-	1	-
TOTAL of # 400088001		**2**	-	-	-	-	-	-	-	-	-	-	1	1
6210201														
BRACKET	PA28140	**1**	-	-	-	-	-	-	1	-	-	-	-	-
SUPPORT	PA28140	**1**	-	-	-	-	-	-	-	-	-	-	-	1
	PA28180	**1**	-	-	-	-	-	-	-	-	-	-	1	-
SUPPORT ASSEMBLY	PA32260	**1**	-	-	-	1	-	-	-	-	-	-	-	-
TOTAL of # 6210201		**4**	-	-	-	1	-	-	1	-	-	-	1	1
65412045														
STUD	550	**1**	-	-	-	-	-	-	-	-	-	-	-	1
TOTAL of # 65412045		**1**	-	-	-	-	-	-	-	-	-	-	-	1
730048001														
CONTROL ROD	M20K	**1**	-	-	-	-	-	-	-	-	-	-	-	1
TOTAL of # 730048001		**1**	-	-	-	-	-	-	-	-	-	-	-	1
7635109032047														
SPUR GEAR	S76A	**1**	-	-	-	-	-	-	-	-	-	-	-	1
TOTAL of # 7635109032047		**1**	-	-	-	-	-	-	-	-	-	-	-	1
991030130														
EXHAUST STACK	335	**1**	-	-	-	-	-	-	-	-	-	-	-	1
TOTAL of # 991030130		**1**	-	-	-	-	-	-	-	-	-	-	-	1
MS20364624C														
AXLE NUT	PA30	**1**	-	-	-	-	-	-	-	-	-	-	-	1
TOTAL of # MS20364624C		**1**	-	-	-	-	-	-	-	-	-	-	-	1
S19911														
CONTACTOR	150M	**1**	-	-	-	-	-	-	1	-	-	-	-	-

PART NUMBER / PART NAME	ACFT MODEL	TOTAL	YEAR 1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998
S19911														
SOLENOID	172L	**1**	-	-	-	-	-	-	-	-	-	-	-	1
TOTAL of # S19911 - - - - - - - - - - - - - - - -		**2**	-	-	-	-	-	-	1	-	-	-	-	1
S21381														
BOLT	172N	**1**	-	-	-	-	-	-	-	-	-	-	-	1
TOTAL of # S21381 - - - - - - - - - - - - - - - -		**1**	-	-	-	-	-	-	-	-	-	-	-	1
TB1025042102														
GUIDE	TB20TRINIDAD	**1**	-	-	-	-	-	-	-	-	-	-	-	1
TOTAL of # TB1025042102 - - - - - - - - - - - - - -		**1**	-	-	-	-	-	-	-	-	-	-	-	1
TOTAL for ALL (61) PART NUMBERS: - - - -		**69**	-	-	-	7	6	4	8	1	1	4	12	26

END OF SIGNIFICANT OCCURRENCE REPORT INDEX

DOMESTIC

SERVICE DIFFICULTY REPORT



DOMESTIC SERVICE DIFFICULTY REPORT SUMMARY - AIRCRAFT

ATA OPER	REG. NO SERIAL NO	ACFT MAKE ACFT MODEL	ENG MAKE ENG MDL	PROP MAKE PROP MDL	COMP MFG COMP MDL	PART NAME PART NUMBER	PART COND PART LOC.	TT TSO	DIFF. DATE OPER CONT NO
8120	621KE	BEECH				GEAR	FAILED		4/3/98
KVJA	BA556	G18S				8797	REAR SECTION	91	98ZZZX1652
	SUPERCHARGER INPUT GEAR FAILED. CAUSE UNKNOWN.								
5522	520MC	BEECH				ELEVATOR	DAMAGED	8540	10/9/97
	BB43	200BEECH				101610000606	RT OUTBOARD		97ZZZX5116
	AFTER A HANGAR RASH INCIDENT, THE RIGHT ELEVATOR WAS BEING REPAIRED FOR DAMAGE TO THE FIBERGLASS TIP. AFTER REMOVAL OF THE TIP, THREE HOLES IN THE OUTBOARD TRAILING EDGE AREA OF THE SKIN WERE FOUND FILLED WITH BODY FILLER. THE FILLER WAS REMOVED AND AN ALUMINUM DOUBLER WAS INSTALLED AFTER BEING APPROVED ON FORM 8110-3.								
5620	60PD	BEECH				WINDOWS	DELAMINATED		11/18/97
	BB58	200BEECH				1014301835	NR 5 RT		97ZZZX5120
	DURING ROUTINE CLEANING OF THE AIRCRAFT WINDOWS, DELAMINATION BUBBLES WERE NOTED NEAR THE BOTTOM EDGE AREA OF THE NR 5 PASSENGER WINDOW. BUBBLES WERE ABOUT THE SIZE OF A PENCIL ERASER OR SMALLER. TOTAL AREA WAS APPROXIMATELY 8 INCHES BY . 50 INCH. WINDOW WAS REPLACED WITH NEW.								
5730	56CC	BEECH				PANEL	CRACKED	8093	11/13/97
	BB189	200BEECH					RT WING OTBD		97ZZZX5119
	THE INBOARD AREA OF THE RIGHT OUTBOARD WING PANEL HAS A .3750 INCH CRACK FROM THE TOP OF THE RADIUS CUT-OUT ON THE LEADING EDGE FAIRING.								
5753	56CC	BEECH				BRACKET	CRACKED	893	11/13/97
	BB189	200BEECH					RT OTBD FLAP		97ZZZX5117
	DURING INSPECTION, A .50 INCH CRACK WAS NOTED WHERE THE BRACKET FOR THE FLAP INNER CONNECT ATTACHES ON THE RIGHT OUTBOARD FLAP. IT APPEARS THE ROD END FOR THE INNER CONNECT WAS LOOSE WHERE IT ATTACHED TO THE BRACKET AND ALLOWED ENOUGH PLAY FOR THE ROD END TO STRIKE THE BASE OF THE BRACKET CAUSING A CRACK.								
5753	56CC	BEECH				SKIN	CRACKED	8093	11/13/97
	BB189	200BEECH					INBD FLAP		97ZZZX5118
	DURING INSPECTION, A .75 INCH CRACK WAS FOUND NEAR A RIVET WHICH ATTACHES THE ENGINE NACELLE TRAILING EDGE FAIRING TO THE INBOARD FLAP. THE CRACK WOULD NOT HAVE RESULTED IN ANY DAMAGE, BUT SINCE IT IS PART OF A CONTROL SURFACE, RESULTED IN BEING A MAJOR REPAIR.								
5512	228RA	BEECH				SKIN	CRACKED	5794	11/3/97
	LW197	E90			50600001623	5062000153	LT HORIZ STAB		97ZZZX5115
	AFTER REMOVAL OF THE SURFACE DE-ICE BOOT, A SMALL CRACK APPROXIMATELY .6250 INCH LONG WAS FOUND RADIATING FROM A RIVET HOLE ON THE LEFT HORIZONTAL STABILIZER AT STA 63.0. THE CRACK WAS RADIATING OUTBOARD AND AFT. CRACKED AREA WAS REMOVED AND A FLUSH DOUBLER WAS INSTALLED.								
2730	6645K	BEECH				TORQUE TUBE	CRACKED		2/26/98
EHHR	U209	C99				115610010325	ELEVATOR		98ZZZX1634
*****	ELEVATOR TORQUE TUBE ASSY, P/N 115610010325, INSPECTED PER SB 2145 (RECURRING) DATED APRIL, 1986. AIRCRAFT HISTORY INDICATES NUMEROUS REPLACEMENTS DUE TO CRACKS IN SUPPORT ASSY, P/N 1156100181, OR TORQUE TUBE, P/N 11510010325.								
2730	6656N	BEECH				SUPPORT	CRACKED	702	2/26/98
EHHR	U213	C99			115610010325	1156100181	ELEV TORQ TUBE		98ZZZX1635
*****	ELEVATOR TORQUE TUBE SUPPORT IS INSPECTED EACH 1,000 HOUR RECURRING PER SB 2145, DATED APRIL, 1986. AIRCRAFT HISTORY INDICATES NUMEROUS REPLACEMENTS DUE TO CRACKS OF SUPPORT ASSY, P/N 115610181 OR TORQUE TUBE, P/N 115610010325.								

******* DENOTES SIGNIFICANT OCCURRENCE**

ATA OPER	REG. NO SERIAL NO	ACFT MAKE ACFT MODEL	ENG MAKE ENG MDL	PROP MAKE PROP MDL	COMP MFG COMP MDL	PART NAME PART NUMBER	PART COND PART LOC.	TT TSO	DIFF. DATE OPER CONT NO
3231	118SF	BEECH				CAM	BENT		4/6/98
JDWA	U32	99			1158100366	15810038	RT OTBD MLG DOOR		98ZZZX1689
	PIC REPORTED THE INABILITY TO EXTEND THE LANDING GEAR ELECTRICALLY, WITH A LOUD BANG NOTED IMMEDIATELY UPON EXTENSION. THE LANDING GEAR WAS EXTENDED MANUALLY, AND THE AIRCRAFT LANDED WITHOUT FURTHER INCIDENT. SUBSEQUENT INVESTIGATION DISCLOSED A TRIPPED LANDING GEAR CIRCUIT BREAKER, AND A BENT RT OUTBOARD MLG DOOR ACTUATING CAM. THE GEAR DOOR ROLLER ASSY STRUCK THE UNDERSIDE OF THE LANDING GEAR ACTUATING CAM CAUSING THE GEAR TO BIND IN THE WHEEL WELL. INVESTIGATION FAILED TO DETERMINE A CAUSE. THE CAM ASSY MAY HAVE BEEN MIS-RIGGED, OR FAILED TO SNAP OVERCENTER DUE TO WEAK RETURN SPRINGS.								
2731	7201Q	CESSNA				ACTUATOR	WORN	4749	4/6/98
	17260501	172L				12600741	ELEVATOR TRIM		98ZZZX1654
	HAD EXCESSIVE PLAY. MAXIMUM PLAY .131 - HAS .330 PLAY. INSTALLED NEW PART.								
2810	3799S	CESSNA				TANK	BROKEN WELD	5033	4/22/98
	17250999	172E				0526007201	BAFFLE		98ZZZX1650
	WHILE MOVING AIRCRAFT A CLICKING SOUND WAS HEARD. AFTER LOOKING IN THE GAS CAP, A LARGE PART WAS FOUND SLIDING AROUND IN FUEL TANK. AFTER A CLOSER LOOK, FOUND BROKEN WELDS ON INTERNAL RIB OR BAFFLE. CAUSE WAS FUEL MOVEMENT IN TANK, AND RIB WAS ONLY WELDED ON ONE SIDE OF RIB. IF WELDED ON BOTH SIDES, IT MAY HAVE NOT BROKEN LOOSE. IF THE RIB WOULD STICK UNDER FUEL GAUGE, FLOAT COULD INDICATE MORE FUEL THAN WAS IN TANK.								
2810	3799S	CESSNA				TANK	BROKEN WELD	5033	4/22/98
	17250999	172E				05260074	BAFFLE		98ZZZX1651
*****	WHILE MOVING AIRCRAFT A CLICKING SOUND WAS HEARD. AFTER LOOKING IN THE GAS CAP, A LARGE PART WAS FOUND SLIDING AROUND IN FUEL TANK. AFTER A CLOSER LOOK, FOUND BROKEN WELDS ON INTERNAL RIB OR BAFFLE. CAUSE WAS FUEL MOVEMENT IN TANK, AND RIB WAS ONLY WELDED ON ONE SIDE OF RIB. IF WELDED ON BOTH SIDES, IT MAY HAVE NOT BROKEN LOOSE. IF THE RIB WOULD STICK UNDER FUEL GAUGE, FLOAT COULD INDICATE MORE FUEL THAN WAS IN TANK.								
3211	6360D	CESSNA				BOLT	FAILED	9401	3/19/98
VT3R	17272746	172N				S21381	LT MLG MOUNT		98ZZZX1669
*****	DURING ROLL-OUT, PILOT LOST DIRECTIONAL CONTROL AND AIRCRAFT VEERED OFF RUNWAY INTO THE DIRT. AFTER CONTACTING UNEVEN TERRAIN, THE LT MLG STRUT COLLAPSED AFT CAUSING DAMAGE TO LT MLG FAIRINGS, FUSELAGE, AND LT STABILIZER/ELEVATORS. INSPECTION SHOWED THE P/N S2138-1 BOLT HAD BROKEN INSIDE STRUT ALLOWING STRUT TO ROTATE AFT. METALLURGICAL ANALYSIS DETERMINED THE BOLT WAS PREVIOUSLY CRACKED. SUBMITTER RECOMMENDED A SAFE LIFE LIMIT BE ESTABLISHED.								
3242	97LP	CESSNA				DISC	OVERHEATED		10/21/97
	17274398	172P				164306151	RT MLG		97ZZZX5127
	UPON INSTALLATION OF NEW CLEVELAND BRAKE DISC AND LININGS ON RT MAIN WHEEL, ACFT WAS TAXIED FOR RUN-UP AND LOUD SQUEELING EMITTED FROM RT BRAKE. PAINT ON DISC DAMAGED LININGS AND CAUSED OVERHEATING. REMOVED PAINT FROM DISC WHERE PADS RIDE, INSTALLED NEW LININGS, CHECKED SATISFACTORILY. SUBMITTER STATED NEW BRAKE DISC'S SHOULD NOT BE PAINTED WHERE LININGS RIDE. CONTACTED PARKER HANNIFIN CORP.								
3252	7201Q	CESSNA				DAMPENER	WORN	4749	4/6/98
	17260501	172L				04425121	NLG		98ZZZX1653
	SHIMMY DAMPENER HAD NO FLUID AND SHAFT WOULD NOT COME OUT FOR OVERHAUL. INSTALLED NEW PART.								
3252	5331V	CESSNA				BARREL	FAILED		11/1/97
	172RG0506	172RG				14421121	SHIMMY DAMPENER		97ZZZX5129
*****	AIRCRAFT WAS BROUGHT TO MAINTENANCE AFTER A TRAINING FLIGHT WITH REPORT OF A SEVERE NOSE WHEEL VIBRATION. AN INSPECTION REVEALED THAT THE END OF THE SHIMMY DAMPENER BARREL CLOSEST TO THE SERVICE HOLE WAS BROKEN OFF. THE OUTER RETAINING LINE AND BEARING HEAD WERE MISSING.								
5753	738QA	CESSNA				ROLLER BEARING	WORN		3/20/98
	17270144	172N			052390138	0523920	RT OTBD FLAP		98ZZZX1671
	RT OUTBOARD LOWER FLAP ROLLER JAMMED IN TRACK CAUSING EXTENSIVE FLAP DAMAGE AND INABILITY TO RAISE FLAPS TO FULL UP POSITION. UPON LANDING, FLAP ROLLER FOUND WORN THROUGH TO ATTACH HARDWARE INDICATING IT HAD NOT BEEN ROLLING, BUT SLIDING IN TRACK. HAVE FOUND SIMILAR 'STUCK' ROLLERS ON OTHER 172 AIRCRAFT DUE TO IMPROPER INSTALLATION OF WASHER STACK ON BOTH SIDES OF ROLLER.								

ATA OPER	REG. NO SERIAL NO	ACFT MAKE ACFT MODEL	ENG MAKE ENG MDL	PROP MAKE PROP MDL	COMP MFG COMP MDL	PART NAME PART NUMBER	PART COND PART LOC.	TT TSO	DIFF. DATE OPER CONT NO
8010	9898G	CESSNA				SOLENOID	FAILED	2445	4/19/98
	17259798	172L				S19911	STARTER		98ZZZX1678
*****	WHEN AIRCRAFT MASTER SWITCH WAS TURNED ON THE STARTER ENGAGED CAUSING THE PROPELLER TO TURN. THE SOLENOID P/N S-199-1 WAS REMOVED AND OPENED UP. WATER, RUST, AND CORROSION WERE FOUND. THIS CAUSED THE SOLENOID TO REMAIN IN THE CLOSED POSITION. THIS CONDITION IS A SERIOUS SAFETY CONDITION AND COULD CAUSE INJURY OR DEATH. A NEW SOLENOID WAS INSTALLED, IT WAS SEALED WITH EPOXY PRIOR TO INSTALLATION TO PREVENT WATER OR MOISTURE FROM ENTERING IT. THE LOCATION OF THE SOLENOID IN THE COWLING ALLOWS RAIN TO ENTER THE UNIT.								
7120	7518M	CESSNA				BRACKET	CRACKED		10/17/97
BX4R	55818	175				051313210	ENG MT ATTACH		97ZZZX5124
	ALL FOUR ENGINE MOUNT BRACKETS ON THE FORWARD END OF THE ENGINE MOUNT STRINGERS WERE CRACKED AND HOLE AREA BENT OUT. THIS AREA BULGED OUT AROUND BOLT HOLE. AIRCRAFT HAS LYCOMING 180 HP MOD.								
7120	7518M	CESSNA				BRACKET	CRACKED		10/17/97
BX4R	55818	175				05131329	ENG MT ATTACH		97ZZZX5123
*****	ALL FOUR ENGINE MOUNT BRACKETS ON THE FORWARD END OF THE ENGINE MOUNT STRINGERS WERE CRACKED AND HOLE AREA BENT OUT. THIS AREA BULGED OUT AROUND BOLT HOLE. AIRCRAFT HAS LYCOMING 180 HP MOD.								
7120	7518M	CESSNA				BRACKET	CRACKED		10/17/97
BX4R	55818	175				051313211	ENG MT ATTACH		97ZZZX5125
	ALL FOUR ENGINE MOUNT BRACKETS ON THE FORWARD END OF THE ENGINE MOUNT STRINGERS WERE CRACKED AND HOLE AREA BENT OUT. THIS AREA BULGED OUT AROUND BOLT HOLE. AIRCRAFT HAS LYCOMING 180 HP MOD.								
2720	5545S	CESSNA				RUDDER BAR	FAILED	3147	4/16/98
	R18201604	R182					RT RUDDER		98ZZZX1666
	RIGHT HAND RUDDER BAR ASSEMBLY, WELDED ON FITTING THAT CONNECTS TO NOSE GEAR STEERING AND CONTROLS RUDDER TRIM, BROKE AWAY FROM RUDDER BAR ASSY. UPON INSPECTION OF WELDED FITTING, IT APPEARS TO HAVE BEEN A COLD WELD.								
3211	8655T	CESSNA				U-BOLT	FAILED	4450	4/21/98
	52555	182C				0541153	LT MLG		98ZZZX1673
*****	DURING 100-HOUR INSPECTION, ONE LEG OF THE U-BOLT ON THE LT MAIN GEAR LEG WAS FOUND BROKEN IN THE THREAD AREA. SUBMITTER SUSPECTS IT WAS DUE TO FATIGUE. A CLOSER LOOK AT THESE BOLTS DURING INSPECTION WOULD BE IN ORDER.								
3030	709FX	CESSNA				PITOT HEAT	FAILED	1148	3/31/98
COEA	208B0430	208B					RT WING		COEA9801709
	DURING CLIMB-OUT IN IMC CONDITIONS, THE PAR WARNING ILLUMINATED INDICATING EXCESS AIRSPEED. COPILOT AIRSPEED INDICATOR WAS ABOVE REDLINE. PILOT DECLARED AN EMERGENCY AND RETURNED TO BASE WITHOUT EVENT. MAINTENANCE FOUND NR 2 PITOT HEAT INOPERATIVE AND HAD ICED OVER IN-FLIGHT CAUSING COPILOT AIRSPEED TO INDICATE ABOVE ACTUAL. NR 2 PITOT TUBE WAS REPLACED. STATIC SYSTEM LEAK CHECKED SATISFACTORY. PITOT HEAT SYSTEM FUNCTION CHECK SATISFACTORY. AIRCRAFT RETURNED TO SERVICE. (X)								
5511	59063	CESSNA				SPAR	CRACKED		1/28/98
	21060062	210L				123262224	STABILIZER		98ZZZX1636
	CRACKS HAVE BEEN FOUND ON THE REAR STABILIZER SPAR. SUSPECT CRACKS ARE CAUSED BY IMPROPER USE OF A RIVET SQUEEZER DURING FACTORY INSTALLATION. SUBMITTER STATED THESE CRACKS AND TOOLING MARKS HAVE BEEN FOUND ON 4 OTHER ASSEMBLIES. CRACKS RANGE IN SIZE FROM .25 INCH TO .50 INCH LONG, AND ARE FOUND ABOVE THE RIVET TAIL.								
7810	335PC	CESSNA				EXHAUST STACK	WORN		3/18/98
	3350053	335				991030130	LT ENG INBD		98ZZZX1662
*****	DURING A ROUTINE ENGINE CHANGE, THE EXHAUST COMPONENTS WERE INSPECTED AND THE LEFT ENGINE, INBOARD EXHAUST STACK (ELBOW) WAS FOUND WITH 2 LARGE HOLES CAUSED BY CONTACT FROM THE HEAT SHIELDS MOUNTED ABOVE THE ELBOW. THE HEAT SHIELDS ALSO HAD HOLES IN THEM AND WERE BURNED BY THE ESCAPING EXHAUST GASSES. ROUTED DIRECTLY ABOVE THE HEAT SHIELDS IS THE MAIN WIRE BUNDLE CONTAINING ALL NECESSARY WIRING FROM THE LEFT ENGINE. SEVERAL WIRES SHOWED SIGNS OF HEAT DAMAGE TO THE INSULATION AND ONE WIRE WAS BURNED COMPLETELY IN HALF.								

ATA OPER	REG. NO SERIAL NO	ACFT MAKE ACFT MODEL	ENG MAKE ENG MDL	PROP MAKE PROP MDL	COMP MFG COMP MDL	PART NAME PART NUMBER	PART COND PART LOC.	TT TSO	DIFF. DATE OPER CONT NO
8120	38CJ	CESSNA				VALVE	LEAKING	682	4/3/98
GNXA	402C0023	402C				C1650060107	WASTEGATE		98ZZZX1661
	DURING FLIGHT AT 10,000 MSL, PILOT NOTICED THAT OIL PRESSURE ON RIGHT ENGINE WAS DROPPING SLOWLY AND OIL TEMP WAS RISING SLOWLY FOLLOWED SHORTLY BY A COMPLETE LOSS OF MANIFOLD PRESSURE. THE PILOT TOOK PRECAUTIONARY MEASURES AND SHUT DOWN ENGINE. HE CONTINUED ON AND MADE AN UNEVENTFUL SINGLE ENGINE LANDING. MAINTENANCE PERSONNEL FOUND THE WASTEGATE ACTUATOR FAILED AND ALL THE ENGINE OIL WAS DUMPED. INSPECTION REVEALED THE SEAL INSIDE THE ACTUATOR WAS BAD. AN OVERHAUL OF THE COMPLETE ASSY REPAIRED THE PROBLEMS. NO KNOWN CAUSE FOR SEAL FAILURE.								
2710	674G	CESSNA				CABLE	MISINSTALLED	4295	6/22/94
EBVR	5500435	550					TERMINAL END		94ZZZX4575
	DURING PHASE 5 INSPECTION, AILERON CONTROL CABLES AT THE COCKPIT YOKES WERE REMOVED FOR INSPECTION. AT YOKE DISASSEMBLY, FOUND CABLE TERMINAL END HARDWARE NOT PROPERLY INSTALLED. NUTS WERE ONLY ON THE AN3 BOLTS BY 2-3 THREADS AND FIBER LOCK WAS NOT ENGAGED. ALL FOUR CABLES WERE FOUND IN THIS CONDITION. HAD THEY COME OFF, AILERON CONTROL WOULD HAVE BEEN LOST.								
3233	310AV	CESSNA				STUD	FAILED		4/1/98
GMNR	5500028	550				65412045	MLG ACTUATOR		98ZZZX1692
*****	IN PERFORMING 10,000-HOUR MLG INSPECTION AND UPON INSTALLING NUT ON STUD, STUD SHEERED IN HALF AT BASE OF THREADED AREA ALLOWING ACTUATOR TO SEPARATE FROM LANDING GEAR. AIRCRAFT WAS ON JACKS. UPON INSPECTION OF STUD, DETERMINED IT WAS CRACKED AND CORRODED.								
2435	515AM	GULSTM			LEARSIEGLER	STARTER	FAILED	1023	2/3/98
	95008	695				230790001	START/GEN		98ZZZX1638
	UPON REMOVAL OF STARTER/GENERATOR, FOUND MAIN SHAFT BEARING FAILED CAUSING AN INTERNAL SHORT TO STARTER HOUSING. PER OPERATOR, FAILURE WAS NOT ABNORMAL AND DUE TO TIME ON COMPONENT.								
3213	2750K	LUSCOM				GEAR LEG	FAILED	1710	4/10/98
	5477	8A				0831192	RT MLG		98ZZZX1659
*****	CORROSION INTERNALLY. FRACTURE ABOVE WELD BELOW BRAKE PULLEY. TOTAL GEAR FAILURE ON RIGHT GEAR ON LANDING. SEE LUSCOMBE NEW LETTER NR 113.								
2710	261CB	MOONEY				CONTROL ROD	RUSTED	3967	1/15/98
EA6R	250391	M20K				730048001	RT AILERON		98ZZZX1698
*****	DURING ANNUAL INSPECTION NOTED AILERON ROD RUSTY. UPON FURTHER INSPECTION, FOUND ROD RUSTED TO THE EXTENT IT COULD BE SEPARATED IN TWO WITH LIGHT HAND PRESSURE. SUBMITTER RECOMMENDED INSPECTING AT EACH ANNUAL.								
3230	60DC	PIPER				BELLCRANK	CRACKED	5261	3/31/98
BONR	600797806123	PA60600				400088001	LT MLG WELL		98ZZZX1695
*****	DURING ROUTINE TRAINING FLIGHT, TOWER REPORTED THE LT MLG INBOARD DOOR REMAINED OPEN AFTER LANDING GEAR EXTENSION. AIRCRAFT LANDED WITHOUT INCIDENT. INSPECTED AIRCRAFT AND FOUND LT MLG BELLCRANK P/N 400088-001 BROKEN. THIS ALLOWED SEQUENCE VALVE TO OPEN CAUSING MLG DOOR TO FREEFALL OPEN. THE SAME PROBLEM OCCURRED IN 1994 TO RT BELLCRANK WITH 4,266.3 HRS TT. THE REPLACEMENT LT BELLCRANK IS SUBSTANTIALLY IMPROVED OVER ORIGINAL PART. SUBMITTER RECOMMENDED A SERVICE BULLETIN TO REQUIRE FREQUENT INSPECTIONS OF ORIGINAL PARTS.								
3060		PIPER				BRACKET	CRACKED		4/16/98
JGVR		PA23250			758180	758243	DEICE BRUSH BLK		98ZZZX1679
	CUSTOMER RETURNED P/N 758-180 (4E1515-3) PROP DEICE BRUSH BLOCK ASSY BECAUSE BRACKET P/N 758-243 (431514-2) WAS CRACKED IN RADIUS OF BEND.								
3230	51ME	PIPER				BOLT	FAILED		4/15/98
	277854066	PA23250			1619800	400235	NLG DRAG BRACE		98ZZZX1667
	UPPER NOSE GEAR DRAG BRACE BOLT FAILED. FAILURE OCCURRED ON BOLT UNDER DRAG BRACE BUSHING. METAL FATIGUE IS SUSPECTED REASON FOR FAILURE. SUBMITTER SUGGESTED REMOVING AND VISUALLY INSPECTING BOLT AND/OR PERFORM NDT OF BOLT.								

ATA OPER	REG. NO SERIAL NO	ACFT MAKE ACFT MODEL	ENG MAKE ENG MDL	PROP MAKE PROP MDL	COMP MFG COMP MDL	PART NAME PART NUMBER	PART COND PART LOC.	TT TSO	DIFF. DATE OPER CONT NO
2710	9729W	PIPER				SUPPORT	CRACKED		4/1/98
	2823207	PA28140				6210200	AIL BELLCRANK		98ZZZX1676
	AILERON BELLCRANK SUPPORTS BROKEN AT FORWARD ENDS OF SUPPORT. THE DAMAGE HAS TO BE FOUND WITH A MIRROR. THE BELLCRANK SUPPORTS LOOK SATISFACTORY LOOKING IN THE ACCESS HOLES ORIGINALLY INSTALLED BY PIPER. THE FRONT FLANGE OF THE AILERON BELLCRANK SUPPORT BRACKETS FRONT BOLT HOLES FOR MOUNTING CRACKED COMPLETELY FROM ONE FLANGE SUPPORT EDGE TO THE OTHER. SUSPECT CAUSED BY HIGH WINDS AND NO AILERON LOCKING PROVISION ON THIS AIRCRAFT. THE DAMAGE IS HIDDEN BY THE WAY THE SUPPORTS' FLANGE IS BENT UP ON THE OUTBOARD EDGE. THE INBOARD FLANGE THAT IS BOLTED AND RIVETED TO THE RIB IS THE AREA THAT CRACKS.								
2710	9729W	PIPER				SUPPORT	CRACKED		4/1/98
	2823207	PA28140				6210201	AIL BELLCRANK		98ZZZX1677
*****	AILERON BELLCRANK SUPPORTS BROKEN AT FORWARD ENDS OF SUPPORT. THE DAMAGE HAS TO BE FOUND WITH A MIRROR. THE BELLCRANK SUPPORTS LOOK SATISFACTORY LOOKING IN THE ACCESS HOLES ORIGINALLY INSTALLED BY PIPER. THE FRONT FLANGE OF THE AILERON BELLCRANK SUPPORT BRACKETS FRONT BOLT HOLES FOR MOUNTING CRACKED COMPLETELY FROM ONE FLANGE SUPPORT EDGE TO THE OTHER. SUSPECT CAUSED BY HIGH WINDS AND NO AILERON LOCKING PROVISION ON THIS AIRCRAFT. THE DAMAGE IS HIDDEN BY THE WAY THE SUPPORTS' FLANGE IS BENT UP ON THE OUTBOARD EDGE. THE INBOARD FLANGE THAT IS BOLTED AND RIVETED TO THE RIB IS THE AREA THAT CRACKS.								
5412	6166H	PIPER				FIREWALL	CORRODED	2108	9/17/97
H8AR	28R7803093	PA28R201T				3575305	TURBO AREA		97ZZZX5122
	HOLE IN FIREWALL OBSERVED DURING ANNUAL INSPECTION. UPON REMOVAL, FOUND INTERIOR CORROSION MUCH MORE ADVANCED THAN EXTERIOR. HOLE SEEMED TO BE CAUSED BY CONSTANT EXPOSURE TO TURBOCHARGER OPERATING TEMPERATURES. PLASTIC ON AFT SIDE OF FIREWALL EXHIBITED SIGNS OF THERMAL BREAKDOWN AND CHARRING.								
5412	36751	PIPER				FIREWALL	CORRODED		10/27/97
H8AR	28R7803339	PA28R201T				3575305	TURBO AREA		97ZZZX5121
	DURING MAINTENANCE FOR ALTERNATOR FAILURE, FOUND FIREWALL HAD A HOLE DUE TO CORROSION. SUSPECT CORROSION DUE TO HEAT EXPOSURE FROM TURBOCHARGER.								
3213	7732Y	PIPER				AXLE NUT	FAILED		3/26/98
	30821	PA30				MS20364624C	NLG		98ZZZX1672
*****	AXLE NUT P/N MS 20364-624C (PIPER P/N 752-482) WORKED LOOSE AND FELL OFF OF NOSE GEAR AXLE TIE BOLT P/N 20854-00. THIS NUT IS ADJUSTED ONLY TIGHT ENOUGH TO REMOVE FREE PLAY ON NOSE WHEEL BEARINGS. IT IS NOT TORQUED TO A SPECIFIC TORQUE. WHEN NUT CAME OFF, THIS ALLOWED TIE BOLT TO SLIDE OUT OF NOSE GEAR TO THE SIDE. TIE BOLT THEN JAMMED NOSE GEAR IN THE UP POSITION. AFTER 1 HR OF TRYING TO DISLODGE L/G, ACFT LANDED WHEELS UP WITH NO INJURIES AND MINOR DAMAGE. SUBMITTER RECOMMENDED REPLACING ANY AXLE TIE BOLT WITH THREAD WEAR AND INSTALL NEW LOCKNUTS AND A SLIGHTLY LONGER TIE BOLT ALLOWING AN363C NUT (NOT THIN TYPE) OR DRILLED TIE BOLT FOR CASTLE NUT AND COTTER PIN ARRANGEMENT. TT ON ACFT IS 7,300 HRS.								
3260	92877	PIPER				SWITCH	OUT OF ADJUST	76	2/6/98
	3246078	PA32R301					RT MLG DOWNLOCK		98ZZZX1674
	GEAR DOWN LIGHT DID NOT COME ON WHEN THE GEAR WAS EXTENDED. FOUND RT MLG DOWNLOCK LIGHT SWITCH OUT OF ADJUSTMENT. JACKED AIRCRAFT AND ADJUSTED SWITCH.								
5210	51TB	SOCATA				GUIDE	FAILED	1628	3/19/98
FO6R	488	TB20TRINIDAD				TB1025042102	RT DOOR FWD CAB		98ZZZX1668
*****	WHILE TROUBLESHOOTING AN AIR LEAK ON THE RT DOOR, DISCOVERED THE FWD DOOR LATCH WAS NOT OPERATING DUE TO A BROKEN LOWER LATCH GUIDE. FURTHER INVESTIGATION REVEALED THE BROKEN LATCH GUIDE WAS A P/N TB1025042100 GUIDE MADE OF PLASTIC INSTEAD OF THE PROPER P/N TB1025042102 GUIDE MADE OF MACHINED ALUMINUM. A CHECK OF THE OTHER DOOR LATCHES ON THE RT AND LT DOORS ALSO FOUND IMPROPER P/N GUIDES INSTALLED. THERE WAS NO RECORD OR INDICATIONS THAT THE GUIDES HAD BEEN PREVIOUSLY REPLACED. RECOMMEND INSPECTION OF DOOR LATCHES AND REPLACEMENT OF IMPROPER PARTS.								
7160	4631V	VARGA			BRACKETT	GASKET	DETERIORATED		4/1/98
	VAC8777	2150AMORISY				BA4101	CARB HEAT BOX		98ZZZX1663
	DURING ANNUAL INSPECTION, FOUND CARBURETOR HEAT BOX GASKET P/N BA-4101 (BRACKETT) IN A DETERIORATED CONDITION. ON VARGA MODEL 2150A THERE ARE TWO BA-4101 GASKETS. ONE BETWEEN THE AIR VARGA P/N 30020-31 DUCT ASSY, AND ONE BETWEEN DUCT ASSY AND VARGA P/N 30020-32 CARBURETOR HEAT BOX. THE GASKET BETWEEN THE CARB AIR BOX AND DUCT ASSY IS THE SAME GASKET THAT AD 96-09-06 APPLIES. AIRCRAFT TT 1,526.0 HOURS, TT ON PART UNKNOWN.								

(End of DOMESTIC SERVICE DIFFICULTY REPORT SUMMARY - AIRCRAFT)

DOMESTIC SERVICE DIFFICULTY REPORT SUMMARY - HELICOPTERS

ATA OPER	REG. NO SERIAL NO	ACFT MAKE ACFT MODEL	ENG MAKE ENG MDL	PROP MAKE PROP MDL	COMP MFG COMP MDL	PART NAME PART NUMBER	PART COND PART LOC.	TT TSO	DIFF. DATE OPER CONT NO
3425	866MP	AEROSP				SYNCHRO	DEFECTIVE		4/9/94
HEEA	5089	AS355F1			KA51A	071105304	COCKPIT HSI		HEEA942216
	HSI 20 DEGREES - 100 DEGREES OFF.								
3452	5785Y	AEROSP				TRANSPONDER	INOP		5/7/94
HEEA	5105	AS355F1			KT76	066106200	COCKPIT		HEEA942178
	TRANSPONDER PUTS OUT NO SIGNAL. TROUBLESHOT AND REPLACED TRANSISTOR Q415, CAVITY OSCILLATOR V101 AND ADJUSTED 9 VOLT POWER SUPPLY. REPAIRED PROBLEM.								
7320	942MS	AEROSP	ALLSN			CABLE	FRAYED	99	4/27/98
	5498	AS355F2	250C20F			704A34130163	NR 2 N2 CONTROL		98ZZZX1683
	CABLE FRAYED AND BEARING WORN OUT CAUSING BINDING OF N2 LINKAGE. SUBMITTER SUGGESTED INSTALLING A BETTER, MORE RELIABLE SYSTEM.								
2432		AEROSP				BATTERY	DEFECTIVE		2/22/94
KY1R		SA365N1				99892R4495	EMERG DC SYS		94ZZZX4579
	BATTERY WILL NOT HOLD CHARGE, PUT A LOAD ON BATTERY, IT FAILED.								
2432		AEROSP				BATTERY	DEFECTIVE		2/22/94
KY1R		SA365N1				99892R4495	EMERG DC SYS		94ZZZX4580
	BATTERY WILL NOT HOLD CHARGE, PUT A LOAD ON BATTERY, IT FAILED.								
6420		AEROSP				SPIDER	WORN		2/23/94
KY1R		SA365N1				365A33214200	T/R		94ZZZX4578
	SPIDER BUSHINGS OUT OF LIMITS, 33MM.								
2913	911RX	AGUSTA				COUPLING	WORN	512	6/30/94
	10017	A109K2				807712	NR 2 HYD PUMP		94ZZZX4571
	DURING 600-HOUR INSPECTION, DRIVE COUPLING IN NR 2 HYDRAULIC PUMP WAS FOUND WORN ON PUMP SIDE. A NEW DRIVE COUPLING SAME P/N WAS INSTALLED.								
3212	911RX	AGUSTA				SWITCH	OPEN	512	6/30/94
	10017	A109K2				1090760451	FLOAT		94ZZZX4573
	DURING 600-HOUR INSPECTION, CHECK OUT OF FLOAT SWITCH PROVED IT WAS INOPERATIVE 'OPEN'. NEW SWITCH SAME P/N WAS ORDERED WHICH FIXED PROBLEM.								
6220	911RX	AGUSTA				DAMPER	WORN	512	6/30/94
	10017	A109K2				1090101063	M/R		94ZZZX4572
*****	DURING 600-HOUR INSPECTION, DAMPER ROD END FOUND TO HAVE PLAY, NO PLAY ALLOWED. A REPLACEMENT DAMPER WAS INSTALLED.								
6420	911RX	AGUSTA				BUSHING	WORN	12	7/11/94
	10017	A109K2				1090131193	T/R TRUNNION		94ZZZX4570
	TAIL ROTOR SLEEVE TRUNNION SLIPPAGE CAUSED UNUSUAL RATE OF WEAR ON TRUNNION BUSHINGS. REMOVED, REPAIRED AND REINSTALLED TRUNNION ASSY IAW AGUSTA FAX-1171 AND INSTALLED NEW BUSHINGS. TIME SINCE NEW TRUNNION INSTALLATION, 11.6 HOURS.								
2312	2272V	BELL				TRANSCEIVER	MALFUNCTION		4/14/94
HEEA	3621	206B				064105430	COCKPIT		HEEA942171
	SCRATCHY RECEPTION ON 123:00. DISPLAY GOING OUT. VERIFIED FAULTY DISPLAY; BUT NO RECEPTION PROBLEM. REPLACED DS901 DISPLAY AND REPAIRED. BENCH CHECK GOOD.								

******* DENOTES SIGNIFICANT OCCURRENCE**

ATA OPER	REG. NO SERIAL NO	ACFT MAKE ACFT MODEL	ENG MAKE ENG MDL	PROP MAKE PROP MDL	COMP MFG COMP MDL	PART NAME PART NUMBER	PART COND PART LOC.	TT TSO	DIFF. DATE OPER CONT NO
2312	6251X	BELL				RECEIVER	FAILED		4/22/98
HEEA	51552	206L3			KX155	069102435	NAV/COMM		HEEA0014013
	NAV COMM RECEIVER NO DISPLAY.								
2312	6160Z	BELL				TRANSCEIVER	DEFECTIVE		4/29/94
HEEA	51610	206L3				064105430	COCKPIT		HEEA942170
	HIGH NOISE WHEN KEYING MIKE FOR FIRST 15 MINUTES OF OPERATION, THEN NORMAL. FOUND SOME DISPLAY SEGMENTS INOPERATIVE. REPLACED DISPLAY DS901. REPAIRED AND ADJUSTED SQUELCH AND SIDE TONE. BENCH CHECK GOOD.								
2330	206LS	BELL				AUDIO PANEL	FAILED		4/22/98
HEEA	51070	206L3				066105552	COCKPIT		HEEA0014017
	PA CHANNEL INOPERATIVE AND DUAL SINGLE SWITCH LOOSE.								
2430	4282Z	BELL				RELAY	STUCK		4/29/98
HEEA	51499	206L3				A1077	DC SYS		HEEA0014060
	STUCK CLOSED AFTER INSTALLATION. RESET RELAY AND TRIED AGAIN, UNIT THEN STARTED SMOKING. REPLACED WITH SERVICEABLE RELAY SYSTEM.								
2432	3181Y	BELL				CELL	DEFECTIVE		1/26/94
HEEA	3772	206B			30135001	17SP100	NR 3		HEEA942131
	BATTERY INSPECTED BY ACCESSORY SHOP AND FOUND CELL #3 WOULD NOT ACCEPT A CHARGE. CELL REPLACED.								
2432	2268V	BELL				CELL	DEFECTIVE		4/1/94
HEEA	3605	206B3			30135001	17SP100	NR 1		HEEA942130
	BATTERY INSPECTED WHEN RECEIVED AND FOUND CELL #1 WOULD NOT HOLD UP ON CAPACITY TEST. CELL REPLACED.								
2432	5014Y	BELL				CELL	DEFECTIVE		4/4/94
HEEA	45219	206L1			3055401C	17SP100	NR 11		HEEA942132
	BATTERY INSPECTED BY ACCESSORY SHOP AND FOUND CELL #11 WOULD NOT HOLD UP ON CAPACITY TEST. CELL REPLACED.								
2432	206LS	BELL				CELL	DEFECTIVE		2/19/94
HEEA	51070	206L3			3055401C	17SP100	NR 9		HEEA942133
	BATTERY INSPECTED BY ACCESSORY SHOP AND FOUND CELL #9 WOULD NOT ACCEPT A CHARGE. CELL REPLACED.								
2432	4180F	BELL				CELL	WEAK		3/22/94
HEEA	51469	206L3			3055401C	17SP100	NR 5		HEEA942134
	BATTERY WEAK. INSPECTED BY ACCESSORY SHOP AND FOUND CELL #5 WOULD NOT HOLD UP ON CAPACITY TEST. CELL REPLACED.								
2435	50182	BELL				START/GEN	CORRODED	475	4/22/98
HEEA	45242	206L1			200SGL132Q	200SGL1008	END BELL		HEEA0014015
	EXCESSIVE CORROSION FOUND ON END BELL DURING IT'S FIRST 500 HOUR INSPECTION WHICH CORRODED THROUGH ONE OF THE SCREW HOLES. NOTE: THIS SEEMS TO HAVE HAPPENED DUE TO THE TYPE FINISH THESE END BELL ASSEMBLIES HAVE. THEY DON'T HAVE ANY PAINT OR PRIMER.								
2562	513EH	BELL			NARCO	ELT	FAILED		5/1/98
HEEA	45421	206L1				ELT910	COCKPIT		HEEA0014111
	ELT UNIT FOUND IN ON POSITION FOR UNKNOWN TIME.								
2562	6610E	BELL			NARCO	ELT	DEFECTIVE		4/29/98
HEEA	51424	206L3				ELT10	COCKPIT		HEEA0014086
	ELT RESET BUTTON WILL NOT SPRING BACK.								

ATA OPER	REG. NO SERIAL NO	ACFT MAKE ACFT MODEL	ENG MAKE ENG MDL	PROP MAKE PROP MDL	COMP MFG COMP MDL	PART NAME PART NUMBER	PART COND PART LOC.	TT TSO	DIFF. DATE OPER CONT NO
2822	206BY	BELL				PUMP CARTRIDGE	FAILED		4/21/98
LS1R	2871	206B3				2C271	BOOST PUMP		98ZZZX1680
	FORWARD BOOST PUMP INOPERABLE. REMOVED AND REPLACED BOOST PUMP. AIRCRAFT RETURNED TO SERVICE. CONTROL NR 98-4-10.								
2842	7074W	BELL				TRANSDUCER	DEFECTIVE	445	1/26/94
HEEA	52033	206L				BSE20630G	FUEL SYS		HEEA942139
	TRANSDUCER OUTPUT DOES NOT INCREASE ABOVE 6.3V. REPORTED ERRATIC READINGS ON AIRCRAFT.								
3210		BELL				CROSSTUBE	DEFECTIVE		5/19/94
HEEA		206L1				206053203103	S/N PLACARD		HEEA942207
	RIVET INSTALLED IN MIDDLE OF SERIAL NUMBER. UNABLE TO READ S/N.								
3210		BELL				CROSSTUBE	DEFECTIVE		5/12/94
HEEA		206L1				206053203101	S/N PLACARD		HEEA942167
	RIVET INSTALLED IN MIDDLE OF S/N. UNABLE TO READ.								
3210		BELL				CROSSTUBE	DEFECTIVE		5/11/94
HEEA		206L1				206053203101	S/N PLACARD		HEEA942160
	RIVET INSTALLED IN MIDDLE OF S/N. UNABLE TO READ.								
3213	22751	BELL				FITTING ASSY	WORN		4/30/98
HEEA	3627	206B3				206030104001	CROSSTUBE		HEEA0014100
	FITTING ASSY WORN AND GOUGED. SCRAPPED FITTINGS AND REPLACED WITH SERVICEABLE FITTINGS.								
3421	11027	BELL				ROTOR ASSY	DEFECTIVE		5/1/98
HEEA	45411	206L1				2360041905	INDICATOR		HEEA0014110
	ROTOR ASSY BEARINGS ARE BAD.								
3422	4180F	BELL				GYRO	DEFECTIVE		2/26/94
HEEA	51469	206L3				102005403	COCKPIT		HEEA942218
	HORIZ GYRO SLOW TO ERECT, REPORTED PRECESSING.								
3423	22425	BELL				COMPASS	LEAKING		4/22/98
HEEA	45743	206L1				C2300DL4B	COCKPIT		HEEA0014029
	COMPASS LEAKING.								
3444	8594X	BELL				INDICATOR	STICKS		4/25/94
HEEA	51531	206L3			KI250	066305401	COCKPIT		HEEA942180
	NEEDLE STICKS AT 500 FEET. LOOSE WASHERS INSIDE OF UNIT. TROUBLESHOT AND REMOVED LOOSE WASHERS FROM INSIDE OF UNIT AND REPLACED BEZEL ASSEMBLY. BENCH CHECK GOOD.								
3452	3181J	BELL				TRANSPONDER	KNOB BROKEN		5/14/94
HEEA	3771	206B			KT76	066106200	COCKPIT		HEEA942215
	BROKEN KNOB. REPLACED KNOB AND ALSO REPLACED DETERIORATED RESISTOR R477. REPAIRED PROBLEM.								
3452	3181Y	BELL				TRANSPONDER	FAILED		4/29/98
HEEA	3772	206B3			KT76	066106200	COCKPIT		HEEA0014057
	NUMBERS ON THE DIAL, DO NOT MATCH DECODER NUMBER TRANSMITTING. FOUND UNIT SHOWING FALSE PULSES. CLEANED WAFER SWITCHES. REPAIRED. ADJUSTED PULSE WIDTH AND FREQUENCY TO SPECS. BENCH CHECK GOOD.								

ATA OPER	REG. NO SERIAL NO	ACFT MAKE ACFT MODEL	ENG MAKE ENG MDL	PROP MAKE PROP MDL	COMP MFG COMP MDL	PART NAME PART NUMBER	PART COND PART LOC.	TT TSO	DIFF. DATE OPER CONT NO
3452	2759U	BELL				TRANSPONDER	INOP		4/27/94
HEEA	45267	206L1			KT76	066106200	COCKPIT		HEEA942176
	ATC NOT RECEIVING. TROUBLESHOT AND REPLACED V101 OSCILLATOR, R477 RESISTOR AND FACEPLATE. REPAIRED. PERFORMED MOD 6 BY INSTALLING Q415 SPACER. REPAIRED.								
3452	2250U	BELL				TRANSPONDER	INTERMITTENT		3/21/94
HEEA	45754	206L1			KT76	066106200	COCKPIT		HEEA942175
	INTERMITTENT OPERATION. TROUBLESHOT AND REPLACED CAVITY OSCILLATOR V101, DIODE CR202, CAPACITORS, C202 AND C204, TRANSISTOR Q201, FUSE F401, MIXER DIODE AND COAX FOR MIXER DIODE AND DETERIORATED RESISTOR R477. REPAIRED PROBLEM.								
3452	21497	BELL				TRANSPONDER	FAILED		4/29/98
HEEA	51518	206L3			KT76	066106200	COCKPIT		HEEA0014053
	MODE "C" REPORTED INOPERATIVE BY ATC. PERFORMED PRELIMINARY INSPECTION. FOUND PULSE WIDTH TO BE OUT OF SPECS AND REPLY LIGHT TO CONSTANTLY BLINK.								
3457	9907K	BELL				GPS	FAILED	1422	4/16/98
LS1R	2040	206B			GPS150	0110005400	COCKPIT		98ZZZX1685
	GPS WILL NOT PICK UP SATELLITE UNIT SENT TO MANUFACTURER FOR REPAIR. CONTROL NR 984-9.								
3457		BELL				GPS	DEFECTIVE		4/29/98
HEEA		206L1			GPS 150	0110005400	COCKPIT		HEEA0014055
	GPS NO LONGER NEEDED ON AIRCRAFT. BENCH CHECK REQUIRED. PERFORMED PRELIMINARY INSPECTION. FOUND DIRECT TO BUTTON UNREADABLE.								
3457	22425	BELL				GPS	FAILED		4/29/98
HEEA	45743	206L1			GPS 150	0110005400	COCKPIT		HEEA0014056
	GPS TAKES 30 MINUTES TO COME ON. PERFORMED PRELIMINARY INSPECTION. FOUND UNIT TO HAVE UNREADABLE ENTRY AND CRSR BUTTONS.								
5260	6251X	BELL				STEP	CORRODED		4/29/98
HEEA	51552	206L3				206310110	ENTRY		HEEA0014052
	STEP CORRODED BEYOND LIMITS.								
5313		BELL				LONGERON	MIS MFG		4/30/98
HEEA		206L1				206031314123S	FUSELAGE		HEEA0014090
	TOOLING HOLES NOT IN ALIGNMENT WITH ORIGINAL, CAUSING BOW ALONG CENTER OF LONGERON.								
5320		BELL				INTERCOSTAL	DAMAGED		5/1/98
HEEA		206L1				206033410040S	FUSELAGE		HEEA0014105
	MECHANICAL DAMAGE ON LOWER FORWARD BEND RADIUS.								
5530	8592X	BELL				FIN ASSY	MIS MARKED		4/29/98
HEEA	51508	206L3				206023126103	VERT FIN		HEEA0014046
	FIN ASSY RECEIVED WITH INCORRECT PART NUMBER. FOUND PART TO BE A R/H FIN WITH A LEFT HAND PART NUMBER ON IT. LOCATION OF INSERTS ARE ALL FOR R/H SIDE. (SHOULD HAVE BEEN P/N 206-023-126-102)								
6220	2775A	BELL				WASHER	DETERIORATED	1196	5/18/94
HEEA	45297	206L1			206011100159	206010110105	M/R THRUST		HEEA942204
	EXCESSIVE WEAR-MATERIAL DETERIORATING. REPLACED THRUST WASHERS-LOWER TORQUE ON ADJUSTING SCREWS (PRELOAD TOO HIGH).								
6220	1076Y	BELL				WASHER	DETERIORATED	1150	5/23/94
HEEA	45380	206L1			206011100159	206010110105	M/R THRUST		HEEA942228
	EXCESSIVE WEAR-MATERIAL DETERIORATING. REPLACED THRUST WASHERS. LOWER TORQUE ON ADJUSTING SCREWS-PRELOAD TOO HIGH.								

ATA OPER	REG. NO SERIAL NO	ACFT MAKE ACFT MODEL	ENG MAKE ENG MDL	PROP MAKE PROP MDL	COMP MFG COMP MDL	PART NAME PART NUMBER	PART COND PART LOC.	TT TSO	DIFF. DATE OPER CONT NO
6310	22718	BELL				DR.SHAFT	OVERTEMP	9888	3/9/94
HEEA	3618	206B				206040015103	GR BOX COUPLING		HEEA942165
	INDICATION OF OVERTEMP (DISC SIDE ONLY TWO EACH YELLOW TEMP-PLATES) REPAIRED AND RETURNED TO SERVICE.								
6310	22718	BELL				DR.SHAFT	OVERTEMP	6261	3/7/94
HEEA	3618	206B				206040015103	GR BOX COUPLING		HEEA942164
	INDICATION OF OVERTEMP (DISC SIDE ONLY TWO EACH YELLOW TEMP-PLATES) REPAIRED AND RETURNED TO SERVICE.								
6310	22718	BELL				DR.SHAFT	OVERTEMP	7339	4/12/94
HEEA	3618	206B				206040015103	GR BOX COUPLING		HEEA942166
	INDICATION OF OVERTEMP (DISC SIDE TWO EACH YELLOW TEMP-PLATES). BOOT TORN. (OPPOSITE SIDE TWO EACH YELLOW AND RED TEMP-PLATES) REPAIRED AND RETURNED TO SERVICE.								
6310	2268X	BELL				DR.SHAFT	OVER TEMP	8295	4/22/94
HEEA	3607	206B3				206040015103	GR BOX COUPLING		HEEA942161
	INDICATION OF OVERTEMP (DISC SIDE 2 EACH YELLOW TEMP-PLATES)(OPPOSITE SIDE 2 EACH YELLOW AND RED TEMP-PLATES). BOOT OPEN. REPAIRED AND RETURNED TO SERVICE.								
6310	2268X	BELL				DR.SHAFT	OVERTEMP	7918	5/11/94
HEEA	3607	206B3				206040015103	GR BOX COUPLING		HEEA942163
	INDICATION OF OVERTEMP (OPPOSITE SIDE 2 EACH YELLOW TEMP-PLATES). REPAIRED AND RETURNED TO SERVICE.								
6310	2268X	BELL				DR.SHAFT	OVERTEMP	8351	5/10/94
HEEA	3607	206B3				206040015103	GR BOX COUPLING		HEEA942162
	INDICATION OF OVERTEMP (DISC SIDE 2 EACH YELLOW TEMP-PLATES)(OPPOSITE SIDE 2 EACH YELLOW TEMP-PLATES). REPAIRED AND RETURNED TO SERVICE.								
6310	62127	BELL				SLEEVE SEAL	LEAKING	296	4/2/94
HEEA	52023	206L				214040814105	FREEWHEEL		HEEA942150
	FREEWHEEL UNIT AFT CAP SEAL LEAKING. O RING (M83248-1-021), O RING (M83248-1-140), SEAL (214-040-841-101), ADAPTER (406-040-550-101), SLEEVE (214-040-814-105) ALSO REPLACED.								
6320	7077B	BELL				PUMP SEAL	LEAKING	1127	5/12/94
HEEA	52037	206L			206040004115	406340100101	XMSN OIL		HEEA942236
	TRANSMISSION OIL PUMP OUTPUT SEAL LEAKING.								
6320	2770Y	BELL				INDICATOR	FLUCTUATES		4/29/98
HEEA	45291	206L1				90093013	XMSN TEMP/PRESS		HEEA0014074
	OIL PRESS NEEDLE FLUCTUATES.								
6410	5007N	BELL				BEARING	CRACKED	393	5/11/94
HEEA	45184	206L1			206016201127	206010765001	T/R		HEEA942198
	BLADE BEARING CRACKED. ALSO REPLACED SLEEVE P/N 206-010-733-003. SEE MMIR'S 2188 THROUGH 2201. PARTS SCRAPPED LOCALLY.								
6410	5014Y	BELL				BEARING	CRACKED	597	4/21/94
HEEA	45219	206L1			206016201127	206010765001	T/R		HEEA942190
	BLADE BEARING CRACKED. BLADE S/N CS4772 & CS43. ALSO REPLACED SLEEVE P/N 206-010-733-003. SEE MMIR'S 2188 THROUGH 2201. PARTS SCRAPPED LOCALLY.								
6410	5014Y	BELL				BEARING	CRACKED	993	4/21/94
HEEA	45219	206L1			206016201127	206010765001	T/R		HEEA942191
	BLADE BEARING CRACKED. ALSO REPLACED SLEEVE P/N 206-010-733-003. SEE MMIR'S 2188 THROUGH 2201. PARTS SCRAPPED LOCALLY.								

ATA OPER	REG. NO SERIAL NO	ACFT MAKE ACFT MODEL	ENG MAKE ENG MDL	PROP MAKE PROP MDL	COMP MFG COMP MDL	PART NAME PART NUMBER	PART COND PART LOC.	TT TSO	DIFF. DATE OPER CONT NO
6410	50182	BELL				BEARING	CRACKED	138	5/4/94
HEEA	45242	206L1			206016201127	206010765001	T/R		HEEA942195
	BLADE BEARING CRACKED. BLADE S/N CS2967 & CS29. ALSO REPLACED SLEEVE P/N 206-010-733-003. SEE MMIR'S 2188 THROUGH 2201. PARTS SCRAPPED LOCALLY.								
6410	5745N	BELL				BEARING	CRACKED	276	5/2/94
HEEA	45489	206L1			206016201127	206010765001	T/R		HEEA942193
	BLADE BEARING CRACKED. BLADE S/N CS2802 & CS27. ALSO REPLACED SLEEVE P/N 206-010-733-003. SEE MMIR'S 2188 THROUGH 2201. PARTS SCRAPPED LOCALLY.								
6410	5745N	BELL				BEARING	CRACKED	485	5/2/94
HEEA	45489	206L1			206016201127	206010765001	T/R		HEEA942194
	BLADE BEARING CRACKED. ALSO REPLACED SLEEVE P/N 206-010-733-003. SEE MMIR'S 2188 THROUGH 2201. PARTS SCRAPPED LOCALLY.								
6410	5745S	BELL				BEARING	CRACKED	833	5/12/94
HEEA	45491	206L1			206016201127	206010765001	T/R		HEEA942197
	BLADE CRACKED. BLADE S/N CS3971 & CS39. ALSO REPLACED SLEEVE P/N 206-010-733-003. SEE MMIR'S 2188 THROUGH 2201. PARTS SCRAPPED LOCALLY.								
6410	3892R	BELL				BEARING	CRACKED	257	4/20/94
HEEA	45594	206L1			206016201127	206010765001	T/R		HEEA942192
	BLADE BEARING CRACKED. BLADE S/N CS6038 & CS60. ALSO REPLACED SLEEVE P/N 206-010-733-003. SEE MMIR'S 2188 THROUGH 2201. PARTS SCRAPPED LOCALLY.								
6410	3905B	BELL				BEARING	CRACKED	514	4/18/94
HEEA	45598	206L1			206016201127	206010765001	T/R		HEEA942189
	BLADE BEARING CRACKED. BLADE S/N CS3712 & CS37. ALSO REPLACED SLEEVE P/N 206-010-733-003. SEE MMIR'S 2188 THROUGH 2201. PARTS SCRAPPED LOCALLY.								
6410	3905B	BELL				BEARING	CRACKED	169	5/13/94
HEEA	45598	206L1			206016201127	206010765001	T/R		HEEA942200
	BLADE BEARING CRACKED. ALSO REPLACED SLEEVE P/N 206-010-733-003. SEE MMIR'S 2188 THROUGH 2201. PARTS SCRAPPED LOCALLY. PARTS AND LABOR WILL BE INVOICED...PM#6202.								
6410	3905B	BELL				BEARING	CRACKED	68	5/13/94
HEEA	45598	206L1			206016201127	206010765001	T/R		HEEA942199
	BLADE BEARING CRACKED. ALSO REPLACED SLEEVE P/N 206-010-733-003. SEE MMIR'S 2188 THROUGH 2201. PARTS SCRAPPED LOCALLY.								
6410	22425	BELL				BEARING	CRACKED	630	5/13/94
HEEA	45743	206L1			206016201127	206010765001	T/R		HEEA942201
	BLADE BEARING CRACKED. ALSO REPLACED SLEEVE P/N 206-010-733-003. SEE MMIR'S 2188 THROUGH 2201. PARTS SCRAPPED LOCALLY.								
6410	2245Y	BELL				BEARING	CRACKED	23	4/14/94
HEEA	45751	206L1			206016201127	206010765001	T/R BLADE		HEEA942188
	BLADE BEARING CRACKED. BLADE S/N CS2950 & CS28. ALSO REPLACED SLEEVE P/N 206-010-733-003. SEE MMIR'S 2188 THROUGH 2201. PARTS SCRAPPED LOCALLY. PARTS AND LABOR WILL BE INVOICED...PM#6202.								
6410	205FC	BELL				BEARING	CRACKED	270	5/4/94
HEEA	51130	206L3			206016201127	206010765001	T/R		HEEA942196
	BLADE BEARING CRACKED. BLADE S/N CS6042 & CS60. ALSO REPLACED SLEEVE P/N 206-010-733-003. SEE MMIR'S 2188 THROUGH 2201. PARTS SCRAPPED LOCALLY.								
6520	62127	BELL				INDICATOR	LOOSE	885	5/10/94
HEEA	52023	206L				204040508011	T/R GR BOX OIL		HEEA942159
	TAIL ROTOR GEARBOX OIL LEVEL INDICATOR SPINS FREELY DUE TO NO LOCK TAB.								

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6520	62127	BELL				SEAL	LEAKING	524	5/10/94
HEEA	52023	206L				206340103101	T/R GR BOX		HEEA942158
	T/R GEARBOX INPUT SEAL LEAKING. ALSO REPLACED ORING (M83248-1-213), SLEEVE (206-040-420-101), WASHER (NAS1443-7P), ORING (MS29561-230).								
6520	7074W	BELL				SEAL	LEAKING	262	4/10/94
HEEA	52033	206L				206340103101	T/R GR BOX		HEEA942156
	T/R GEARBOX INPUT SEAL LEAKING. ALSO REPLACED ORING (M83248-1-213), WASHER (NAS1443-7P), SPACER (206-040-420-101).								
6520	7077B	BELL				SEAL	LEAKING	221	4/5/94
HEEA	52037	206L				206340103101	T/R GR BOX		HEEA942157
	T/R GEARBOX INPUT SEAL LEAKING. ALSO REPLACED ORING (M83248-1-213), SLEEVE (206-040-420-101), WASHER (NAS1443-7P).								
6520		BELL				PINION	DEFECTIVE		4/21/98
HEEA		206L1				206040440103	T/R GR BOX		HEEA0013993
	SILVER COATING FLAKING FROM GEAR TOOTH.								
6710	2777D	BELL				TUBE ASSY	CORRODED		4/17/94
HEEA	45299	206L1				206001342001	CYCLIC		HEEA942147
	UPON INSPECTION OF TUBE ASSY, CORROSION PITS WERE FOUND. SOME PITS WERE .008 AND .009 DEEP. INSTALLED NEW TUBE ASSEMBLY.								
6710	49EA	BELL				ACTUATOR	DEFECTIVE		5/1/98
HEEA	51507	206L3				206062721109	M/R CONTROL		HEEA0014104
	ACTUATOR WILL NOT ADJUST.								
6710	6161A	BELL				ACTUATOR	FAILED		4/22/98
HEEA	51611	206L3				206062721109	M/R		HEEA0014033
	ACTUATOR INOPERATIVE.								
6720	3905B	BELL				BELLCRANK ASSY	CHAFED		4/29/98
HEEA	45598	206L1				206001763001	ANTI TORQUE		HEEA0014049
	BELLCRANK CHAFFED AT ROD END ATTACH AREA. REPLACED BELLCRANK WITH SERVICEABLE PART.								
7170	828BA	BELL	ALLSN			DRAIN VALVE	CRACKED		11/19/97
RW8A	3426	206B	250C20J			6854255	BURNER		97ZZZX5131
	DURING 100-HOUR INSPECTION, BURNER DRAIN VALVE WAS FOUND CRACKED UNDER O-RING BOSS AREA.								
7170	3905B	BELL				HOSE ASSY	CLOGGED		4/29/98
HEEA	45598	206L1				70031A202000	EXH DRAIN		HEEA0014050
	CLOGGED EXH COLLECTOR DRAIN HOSE. REPLACED WITH NEW HOSE.								
7230	50046	BELL	ALLSN			CARBON SEAL	WORN	358	4/21/98
HEEA	45173	206L1	250C28B		23033191	23004513	ENG COMP		HEEA0014005
	ENGINE REMOVED DUE TO TURBINE OVERHAUL. INSPECTION OF COMPRESSOR PARTS REVEALED: WORN BEYOND SERVICEABLE LIMITS ON SEAL HOUSING TANGS. INSTALLED A NEW SEAL.								
7230	2764F	BELL	ALLSN			CARBON SEAL	WORN	368	4/21/98
HEEA	45279	206L1	250C28B		23033191	23004513	ENG COMP		HEEA0014008
	ENGINE REMOVED DUE TO COMPRESSOR HIGH TIME IMPELLER. INSPECTION OF COMPRESSOR PARTS REVEALED: WORN BEYOND SERVICEABLE LIMITS ON SEAL TANGS AND TANG SLOTS. INSTALLED A NEW SEAL.								

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7230	2770Y	BELL	ALLSN			GEAR	WORN	630	4/21/98
HEEA	45291	206L1	250C28B		23033191	23056634	SPUR ADAPTER		HEEA0014009
	ENGINE REMOVED DUE TO TURBINE OVERHAUL. INSPECTION OF COMPRESSOR PARTS REVEALED: STEP WEAR BEYOND SERVICEABLE LIMITS ON SPUR GEARSHAFT AFT SPLINES (FAILED NO-GO GAUGE) INSTALLED A NEW SPUR GEAR.								
7230	2772A	BELL	ALLSN			CARBON SEAL	WORN	352	4/21/98
HEEA	45311	206L1	250C28B		23033191	23004513	ENG COMP		HEEA0014006
	ENGINE REMOVED DUE TO CRACKED SCROLL. INSPECTION OF COMPRESSOR PARTS REVEALED: WORN BEYOND SERVICEABLE LIMITS ON SEAL TANGS AND TANG SLOTS. INSTALLED A NEW SEAL.								
7230	27766	BELL	ALLSN			GEARSHAFT	STEPWEAR	224	5/1/94
HEEA	45312	206L1	250C28B		23033191	23008090	SPUR ADAPTER		HEEA942141
	ENGINE REMOVED DUE TO LOW POWER. UPON INSPECTION OF COMPRESSOR PARTS NOTED STEP WEAR BEYOND LIMITS ON SPUR ADAPTER GEARSHAFT FORWARD AND AFT SPLINES. INSTALLED NEW SPUR ADAPTER GEARSHAFT.								
7230	8590X	BELL	ALLSN			GEARSHAFT	STEP WEAR	817	4/28/94
HEEA	51494	206L3	250C30P		23033193	23008090	SPUR ADAPTER		HEEA942140
	ENGINE REMOVED DUE TO HIGH CYCLED WHEELS. UPON INSPECTION OF COMPRESSOR PARTS NOTED STEP WEAR BEYOND LIMITS ON SPUR ADAPTER GEARSHAFT AFT SPLINES. INSTALLED NEW SPUR ADAPTER GEARSHAFT.								
7230	8592X	BELL	ALLSN			CARBON SEAL	WORN	928	4/21/98
HEEA	51508	206L3	250C30P		23051643	23004513	ENG COMP		HEEA0014007
	ENGINE REMOVED DUE TO CRACKED SCROLL. INSPECTION OF COMPRESSOR PARTS REVEALED: WORN BEYOND SERVICEABLE LIMITS ON SEAL TANGS AND TANG SLOTS. INSTALLED A NEW SEAL.								
7250	49573	BELL	ALLSN			BEARING	FAILED	921	3/30/98
	1665	206B	250C20B			A6871505	TURBINE NR 5		98ZZZX1682
	AFTER A NORMAL FLIGHT (EXTERNAL LOAD) AND SHUT-DOWN, THE PILOT REPORTED AN ABNORMAL NOISE WHILE TURNING ROTOR BACKWARDS TO TIE-DOWN POSITION. UPON REMOVAL OF THE TURBINE MODULE, THE FORWARD HALF OF THE NR 5 BEARING INNER CAGE FELL OUT. (THIS IS A 1-PIECE UNIT, NOT 2) THIS BEARING IS THE SUBJECT OF AD 96-19-01. THERE HAD BEEN NO PREVIOUS SIGNS OF DISTRESS, I.E., CHIP LIGHTS, ETC. ENGINE OIL FILTER REMAINS CLEAN AT REMOVAL OF TURBINE. SUSPECT THAT BEARING FAILED AFTER SHUT DOWN IN THAT AT OPERATIONAL SPEED NEAR 60K RPM, MAJOR TURBINE DAMAGE WOULD HAVE OCCURRED IN MILLI-SECONDS. REPLACED WITH OEM BEARING.								
7250	104PH	BELL	ALLSN			COUPLING	WORN	697	4/21/98
HEEA	3622	206B3	250C20B		6898735	6898977	ENGINE N1		HEEA0014002
	ENGINE REMOVED DUE TO TURBINE OVERHAUL. UPON INSPECTION OF TURBINE PARTS NOTED: N1 COUPLING FAILED NO-GO GAUGE. INSTALLED A NEW N1 COUPLING.								
7250	27766	BELL	ALLSN			COUPLING	STEPWEAR	320	5/1/94
HEEA	45312	206L1	250C28B		23033185	23032345	N1		HEEA942142
	ENGINE REMOVED DUE TO LOW POWER. UPON INSPECTION OF TURBINE PARTS NOTED STEP WEAR BEYOND LIMITS ON N1 COUPLING SPLINES. INSTALLED NEW N1 COUPLING.								
7250	5737T	BELL	ALLSN			WHEEL	SULFIDATION	1489	4/25/94
HEEA	45454	206L1	250C28B		23031899	6895801	1ST STSGE		HEEA942143
	ENGINE REMOVED DUE TO TURBINE OVERHAUL. UPON INSPECTION OF TURBINE PARTS NOTED SULFIDATION ON 1ST STAGE WHEEL BLADES.								
7250	2250U	BELL	ALLSN			WHEEL	SULFIDATION	820	5/18/94
HEEA	45754	206L1	250C28B		23033185	6895801	1ST STAGE		HEEA942240
	ENGINE WAS REMOVED DUE TO WHINING AT ALL POWER SETTINGS. UPON INSPECTION OF TURBINE PARTS NOTED SULFICATION ON 1ST STAGE WHEEL BLADES. PART SCRAPPED.								
7261	2125M	BELL	ALLSN			ELEMENT	FAILED		5/23/94
HEEA	45649	206L1	250C30			03808808	ENG OIL		HEEA942237
	BYPASS BUTTON POPPED.								

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7261	108W	BELL	ALLSN			TUBE	CHAFED	2100	3/12/98
	52034	206L4	250C30P			23058110A	SCAVENGE OIL		98ZZZX1701
*****	WHILE REMOVING RENTAL ENGINE AND TRANSFERRING HARD LINE P/N 23058110-A FROM RENTAL ENGINE TO ORIGINAL ENGINE, SEVERE CHAFING NOTED UNDER ADEL CLAMP. THIS IS SCAVENGE OIL LINE FROM BOTTOM OF COMPRESSOR TO THE N1 SIDE OF GEARBOX. ABRASIVE DUST AND AIRBORNE DIRT CREEPS IN BETWEEN HARD RUBBER ADEL CLAMP AND OIL LINE AND CHAFES OR WEARS OIL LINE TO THE POINT OF FAILURE. THE NEED EXISTS FOR CLAMPING DEVICES THAT WOULD ELIMINATE THIS CHAFING CONDITION. IN THE MEANTIME, INSPECTION UNDER CLAMPED AREAS IS PRUDENT TO AVOID AN UNSUSPECTED FAILURE.								
7712	20898	BELL				TORQUEMETER	FAILED		4/29/98
HEEA	45721	206L1				206075739103	COCKPIT		HEEA0014077
	TORQUEMETER NEEDLE DOESN'T RETURN TO ZERO.								
3455	5736J	BELL				RECEIVER	FAILED		4/29/98
HEEA	31140	212				066104701	COCKPIT ADF		HEEA0014058
	ADF RECEIVER WEAK RECEIVE AND NOT POINTING CORRECTLY IN ADF MODE. INSPECTED AND FOUND ADF MODE SIGNAL WEAK AND NOT POINTING. TRIED ALIGNING RECEIVER. NO HELP.								
3457	2FOR	BELL				GPS	DEFECTIVE		4/23/94
HEEA	30888	212			SKYNAV5000	0845000000	COCKPIT		HEEA942185
	INTERMITTENTLY DISPLAYS CHARACTERS.								
6220	1079U	BELL				BEARING	WORN	1176	5/9/94
HEEA	31122	212				212011112103	M/R		HEEA942149
	ROLLER BEARING TEFLON COATING WORN OFF.								
6220	1079U	BELL				BEARING	WORN	1176	5/9/94
HEEA	31122	212				212011111103	M/R		HEEA942148
	ROLLER BEARING TEFLON COATING WORN OFF.								
2210	59805	BELL				INDICATOR	FAILED		4/29/98
HEEA	28141	214ST				214175259103	ELEV POSITION		HEEA0014085
	ELEV POSITION INDICATOR INOPERATIVE.								
2312	59806	BELL				CONTROL	FAILED		4/29/98
HEEA	28140	214ST				071121540	COMM SYS		HEEA0014088
	25K PULL TUNING KNOB COMES OUT OF CONTROL HEAD WHEN PULLED. PERFORMED PRELIMINARY INSPECTION. FOUND LOOSE LOCK RING IN UNIT. REINSTALLED LOCK RING, REPAIRED. TESTED UNIT. BENCH CHECK GOOD.								
2435	8045T	BELL				STARTER	FAILED	762	4/27/98
HEEA	28101	214ST				214060056103	ENGINE		HEEA0014034
	DURING 250 HOUR INSPECTION FOUND CLUTCH FAILED TORQUE SLIPPAGE TEST WAS AT 250 IN. LBS. AND END PLAY WAS AT .014 LIMITS ARE .004-.010.								
2435	6957Y	BELL				STARTER	FAILED		4/22/98
HEEA	28139	214ST				214060056103	START/GEN		HEEA0014028
	STARTER KICKS OFF EARLY ON START UP.								
2435	59806	BELL				STARTER	FAILED	1305	4/20/98
HEEA	28140	214ST				214060056103	ENGINE		HEEA0013990
	STARTER WILL NOT DISENGAGE WHEN APPROPRIATE NG% IS ACHIEVED. MUST BE MANUALLY DISENGAGED.								

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2435	59806	BELL				STARTER	MALFUNCTION		4/28/98
HEEA	28140	214ST				2CM272B1	ENGINE		HEEA0014037
	DRAWS HIGH VOLTAGE DURING START UP.								
2435	59806	BELL				STARTER	FAILED	75	4/27/98
HEEA	28140	214ST				214060056103	ENGINE		HEEA0014035
	KICKS OUT DURING START AND HIGH VOLTAGE DRAW.								
3421	59806	BELL				GYRO	FAILED		4/29/98
HEEA	28140	214ST				258719343	COCKPIT		HEEA0014072
	GYRO WILL NOT BECOME VALID.								
6220	8045T	BELL				SPINDLE	CRACKED	2945	4/29/98
HEEA	28101	214ST			214010100207	214010103115	M/R		HEEA0014089
	EAR CRACKED IN MOUNT AREA APPROX. 2 INCHES ON BOTH SIDES, ON LOWER SIDE OF TRAILING EDGE OF WHITE BLADE. SCRAPPED PART.								
6220	8045T	BELL				SPINDLE	CRACKED		4/27/98
HEER	28101	214ST			214010100207	214010103115	M/R HUB		98ZZZX1700
*****	THE MAIN ROTOR SPINDLE WAS CRACKED AT THE TRAILING EDGE TANGS. BOTH LOWER AND UPPER TANGS WERE CRACKED. THE CRACK WAS DETECTED DURING A DAILY VISUAL INSPECTION BY A COMPANY TECHNICIAN. SUBMITTER STATED FAILURE OF THIS SPINDLE WOULD HAVE CERTAINLY LED TO A CATASTROPHIC ACCIDENT.								
6230	8045T	BELL				SWASHPLATE	LOOSE	2911	4/20/98
HEEA	28101	214ST				214010500105	M/R		HEEA0013984
	SWASHPLATE LOWER HUB NUT FOUND UNDER TORQUE.								
6510	8045T	BELL				SHAFT ASSY	CORRODED		4/22/98
HEEA	28101	214ST				214040622005	T/R		HEEA0014021
	EXCESSIVE CORROSION. SCRAPPED LOCALLY.								
6510	8045T	BELL				SHAFT ASSY	CORRODED		4/22/98
HEEA	28101	214ST				214040622005	T/R		HEEA0014020
	EXCESSIVE CORROSION. SCRAPPED LOCALLY.								
6510	8045T	BELL				SHAFT ASSY	CORRODED		4/22/98
HEEA	28101	214ST				214040622005	T/R		HEEA0014019
	EXCESSIVE CORROSION. SCRAPPED LOCALLY.								
6510	8045T	BELL				SHAFT ASSY	CORRODED		4/22/98
HEEA	28101	214ST				214040622005	T/R		HEEA0014022
	EXCESSIVE CORROSION. SCRAPPED LOCALLY.								
6510	6957Y	BELL				SHAFT ASSY	CORRODED		4/22/98
HEEA	28139	214ST				214040622005	T/R		HEEA0014023
	EXCESSIVE CORROSION. SCRAPPED LOCALLY.								
6510	6957Y	BELL				SHAFT ASSY	CORRODED		4/22/98
HEEA	28139	214ST				214040622005	T/R		HEEA0014024
	EXCESSIVE CORROSION. SCRAPPED LOCALLY.								

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7931	59805	BELL				INDICATOR	FAILED		4/29/98
HEEA	28141	214ST				1179405807	ENG OIL		HEEA0014073
	PRESSURE NEEDLE FLUCTUATES WHEN VIBRATED.								
2432	6992	BELL				BATTERY	FAILED	16	4/29/98
HEEA	47521	222U				RG380E44	DC SYS		HEEA0014038
	BATTERY WAS FOUND AT 6 VOLTS ON 3-11-98. BATTERY WAS CHARGED TO 22.5 VOLTS. WHILE DISCONNECTED FROM AIRCRAFT, VOLTAGE DROPPED FROM 22.5 VOLTS TO 18 VOLTS IN ONE HOUR. VOLTAGE WAS MEASURED AT 15.4 VOLTS AFTER 5 HOURS. AIRCRAFT BATTERY WAS INSTALLED NEW AT 4469:05 AIRCRAFT HOURS ON 1-30-98. REPLACED WITH SERVICEABLE AIRCRAFT BATTERY.								
5610	230UN	BELL				VENT WINDOW	HINGE BROKE	1256	5/17/94
HEEA	23009	230				222031290117	CO-PILOT VENT		HEEA942203
	HINGES BROKE OFF CO-PILOT'S VENT WINDOW.								
7261	230UN	BELL				SHAFT SEAL	LEAK	524	4/29/94
HEEA	23009	230				6854424	NR 2 ENG		HEEA942146
	NR2 ENGINE HAS OIL LEAK. REMOVED AND REPLACED GARLOCK SEAL.								
2435	407PH	BELL				BRUSH	WORN	1817	4/20/98
HEEA	53003	407				206062200123	START/GEN		HEEA0013982
	PERFORMED 300 HOUR INSPECTION AND FOUND BRUSHES EXCESSIVELY WORN. REPLACED BRUSHES AND PACKING.								
2821	407PH	BELL				VALVE	LEAKS		4/30/98
HEEA	53003	407				206061634003	FUEL FILTER		HEEA0014093
	VALVE LEAKS.								
3212	407PH	BELL				GAUGE	CONTAMINATED		4/29/98
HEEA	53003	407				212073905001	FLOAT PRESS		HEEA0014067
	MOISTURE IN GAUGE.								
3212	407MM	BELL				GAUGE	CONTAMINATED		4/29/98
HEEA	53060	407				212073905001	FLOAT PRESS		HEEA0014068
	MOISTURE IN GAUGE								
5302	417AL	BELL				SKIN	DENTED		4/22/98
ALGR	53054	407					TAILBOOM		98ZZZX1705
	DURING PRE-FLIGHT INSPECTION, FOUND SHARP DENT IN LT SIDE OF TAILBOOM SKIN APPROXIMATELY 34.8750 INCH FORWARD OF THE AFT END OF THE TAILBOOM CAN AND APPROXIMATELY 2.25 INCH IN LENGTH. THE DENT APPEARS TO HAVE BEEN CAUSED BY A TAIL ROTOR BLADE STRIKING THE TAILBOOM WHILE THE ROTORS WERE IN MOTION.								
5532	437PH	BELL				FIN ASSEMBLY	DAMAGED		4/28/98
HEEA	53072	407				206020113229	VERT FIN		HEEA0014036
	INSPECTED VERTICAL FIN AS PER ASB407-98-17 FOR CUTS AND SCRATCHES. THE ALLOWABLE DEPTH WAS .020. THE TWO CUTS FOUND WERE .017 AND .024 DEEP. SCRAPPED PART.								
6321	406PH	BELL				TRANSMITTER	FAILED		4/30/98
HEEA	53198	407				222375077113	TRANSMISSION		HEEA0014096
	GAUGE READS ZERO OIL PRESSURE.								
6410	457AL	BELL				BLADE	CRACKED	1257	9/29/97
ALGR	53151	407			407012101107	406016100119	T/R		97ZZZX5133
	POST-FLIGHT FOUND TAILROTOR BLADE CRACKED AT INBOARD RADIUS INSIDE TOWARD LEADING EDGE. POSSIBLY STARTED AT CORROSION SPOT.								

ATA OPER	REG. NO SERIAL NO	ACFT MAKE ACFT MODEL	ENG MAKE ENG MDL	PROP MAKE PROP MDL	COMP MFG COMP MDL	PART NAME PART NUMBER	PART COND PART LOC.	TT TSO	DIFF. DATE OPER CONT NO
6510	CGOFL	BELL				DISK COUPLING	CRACKED		4/30/98
HEEA	53130	407				406040340101	T/R DRIVE		HEEA0014098
	ONE DISK CRACKED ON NR7 THOMAS COUPLING PACK.								
6720	407MM	BELL				LINK	WORN		4/30/98
HEEA	53060	407				406312103101	T/R		HEEA0014097
	TAIL ROTOR PITCH CHANGE LINK HAS EXCESSIVE MECHANICAL WEAR.								
7261	407MM	BELL				FILTER ELEMENT	CLOGGED		4/29/98
HEEA	53060	407				23063144	ENG OIL		HEEA0014047
	ON DAILY INSPECTION FOUND OIL FILTER BYPASS BUTTON POPPED. REPLACED WITH SERVICEABLE FILTER.								
7714	1167G	BELL				INDICATOR	INTERMITTENT		4/30/98
HEEA	53067	407				407375002103	ENG NG		HEEA0014099
	NG INDICATOR INTERMITTENT INOPERATIVE.								
2210	23023	BELL				TARSYN	FAILED		4/29/98
HEEA	33080	412				2593996333	AUTO FLIGHT		HEEA0014071
	FAILS TEST 6.2 ON SST. COMPASS CARD WILL NOT MOVE.								
2210	2148K	BELL				COMPUTER	FAILED		4/20/98
HEEA	36001	412				7000298901	AFCS		HEEA0013988
	AFCS COMPUTER FAILED. ROLL ACTUATOR HUNTS BOTH DIRECTIONS.								
2312	3893L	BELL				TRANSEIVER	DEFECTIVE		4/29/98
HEEA	33006	412				7001840913	COCKPIT DISPLAY		HEEA0014087
	50,250,400, AND 1200 LEDS WILL NOT LIGHT.								
2312	3893S	BELL				TRANSCEIVER	GARBLED		2/7/94
HEEA	33022	412			KTR905	064100900	COCKPIT		HEEA942169
	GARBLED. SENT TO ALLIED SIGNAL AVIONICS FOR INSPECTION AND REPAIR.								
2312	2258F	BELL				TRANSCEIVER	MALFUNCTION		4/29/98
HEEA	33073	412				7001840913	COCKPIT		HEEA0014079
	TRANSCEIVER POWER OUT FLUCTUATES WHEN VIBRATED.								
2312	23023	BELL				COMM CONTROL	DEFECTIVE		4/19/94
HEEA	33080	412				071121540	COCKPIT		HEEA942182
	DIGITS TOO DIM IN SUNLIGHT. REPLACED DISPLAY DS901 AND FRONT LENS ON FACEPLATE. ALSO REPLACED TRANSFER SWITCH S102 FOR INTERMITTENT TRANSFER OF FREQUENCY. REPAIRED PROBLEM.								
2312	141PH	BELL				TRANSCEIVER	MALFUNCTION		4/29/98
HEEA	33197	412				7001840913	COCKPIT		HEEA0014078
	TRANSCEIVER POWER OUT FLUCTUATES WHEN VIBRATED.								
2312	33008	BELL				COMM CONTROL	DEFECTIVE		4/26/94
HEEA	36004	412				071121540	COCKPIT		HEEA942183
	CANNOT CHANGE FREQUENCY ON SMALL KNOB. CLEANED KHZ SELECTOR SWITCH S104. ALSO FOUND INTERMITTENT TRANSFER SWITCH S102. REPLACED TRANSFER SWITCH S102. REPAIRED PROBLEM.								

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2370	22608	BELL				CVR	FAILED		4/29/98
HEEA	33075	412				9806020023	COCKPIT		HEEA0014054
	CVR CAUSES THE "TEST" LIGHT TO STAY ILLUMINATED CONSTANTLY.								
2370	2298Z	BELL				CVR	MALFUNCTION	3885	4/22/98
HEEA	33077	412				9806019001	COCKPIT		HEEA0014012
	CVR NEEDS EVALUATION.								
2436	23023	BELL				CONTROL UNIT	FAILED		5/1/98
HEEA	33080	412				51509002R	DC SYS		HEEA0014106
	GENERATOR WOULD NOT COME ON LINE.								
2611	22608	BELL				SMOKE DETECTOR	FAILED		4/20/98
HEEA	33075	412				302319	FUSELAGE		HEEA0013987
	SMOKE DET FAILS FUNCTION TEST.								
2820	293CA	BELL				VALVE	FAILED		4/29/98
HEEA	33005	412				233565	FUEL SYS		HEEA0014069
	VALVE INOPERATIVE.								
2822	2258F	BELL				CIRCUIT BREAKER	FAILED		10/12/94
HEEA	33073	412				MS22073705	LT BOOST PUMP		94ZZZX6877
	LEFT BOOST PUMP WARNING LIGHT CAME ON IN-FLIGHT. CIRCUIT BREAKER TRIPPED AND WOULD NOT RESET. IPC FIGURE 96-39-5.								
2822	107X	BELL				PUMP	FAILED		4/22/98
HEEA	33113	412				205060606003	BOOST		HEEA0014018
	TURNS AT VERY SLOW SPEED AND THEN POPS CIRCUIT BREAKER.								
2840	7128R	BELL				SWITCH	FAILED		10/12/94
HEEA	36007	412				42D218	NR 2 FUEL FILTER		94ZZZX6876
	IN-FLIGHT, NR 2 ENGINE FUEL FILTER LIGHT ILLUMINATED. IPC FIGURE 71-2, ITEM 57.								
2842	293CA	BELL				PROBE	FAILED		4/29/98
HEEA	33005	412				391046199	FUEL QTY		HEEA0014084
	FUEL QTY SENSOR CHAFED WIRE AND TROUBLESHOOTING.								
3120	108X	BELL				CLOCK	MALFUNCTION		4/22/98
HEEA	33115	412				212075514001	COCKPIT		HEEA0014031
	CLOCK LOSES TIMES.								
3414	7128R	BELL				INDICATOR	DEFECTIVE		4/20/98
HEEA	36007	412				412075009105	COCKPIT		HEEA0013986
	AIRSPEED IND EXCESSIVE CASE LEAKAGE AND READ OUT OF TOLERANCE.								
3416	293CA	BELL				ALTIMETER	FAILED		4/29/98
HEEA	33005	412				5035P2P44	COCKPIT ENCODE		HEEA0014082
	ENCODER READS OUT OF TOLERANCE AT 10,000 FEET AND ABOVE.								

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3416	293CA	BELL				ALTIMETER	ERROR		4/29/98
HEEA	33005	412				5035P2P44	COCKPIT ENCODE		HEEA0014083
	ENCODING ALT INDICATES 200 FEET LOW OUT OF TOLERANCE.								
3416	2261D	BELL				ALTIMETER	DEFECTIVE		3/3/94
HEEA	33076	412				1003511326	COCKPIT		HEEA942217
	ALTIMETER HAS EXCESSIVE FRICTION ERROR.								
3421	3893N	BELL				INDICATOR	FAILED		5/1/98
HEEA	33010	412				1113034	FLT DIRECTOR		HEEA0014108
	FD FLAG NOT RETRACTING WHEN POWER IS ON.								
3421	108X	BELL				INDICATOR	FAILED		5/1/98
HEEA	33115	412				1113034	COCKPIT		HEEA0014109
	ATTITUDE INDICATOR WILL NOT OPERATE IN PITCH.								
3425	2298Z	BELL				INDICATOR	ERRATIC		4/16/94
HEEA	33077	412				1113025	COCKPIT HSI		HEEA942223
	CROSS TRACK DEVIATION POINTER HAS A ERRATIC OPERATION.								
3425	22347	BELL				INDICATOR	STICKS		4/29/98
HEEA	36005	412				1113025	COCKPIT		HEEA0014081
	HSI INDICATOR HEADING SET POINTER STICKS INTERMITTENTLY.								
3444	108X	BELL				INDICATOR	STICKS		4/29/98
HEEA	33115	412				7000839904	RADAR ALT		HEEA0014080
	RADAR ALT NEEDLE STICKS AT 210 FEET.								
5260	293CA	BELL				ACTUATOR	FAILED	11	4/21/98
HEEA	33005	412				212075418105	STEP		HEEA0013998
	STEP ACTUATOR INOPERATIVE.								
5260	293CA	BELL				ACTUATOR	FAILED	8	4/21/98
HEEA	33005	412				212075418105	STEP		HEEA0013997
	STEP ACTUATOR INOPERATIVE.								
5260	293CA	BELL				ACTUATOR	STRIPPED	365	4/21/98
HEEA	33005	412				212075418105	STEP		HEEA0013996
	ACTUATOR INTERNAL GEAR SEEMS TO BE STRIPPED.								
5260	33008	BELL				MOTOR	FAILED		4/8/94
HEEA	36004	412			SYLC502281	FYLM735023	STEP		HEEA942138
	STEP WILL NOT EXTEND. MOTOR INSPECTED BY ACCESSORY SHOP AND FOUND DEAD SPOT ON THE ARMATURE.								
6220	2258F	BELL				BOLT	COATING CHIPPED	1036	5/18/94
HEEA	33073	412			412010100193	412010124109	M/R		HEEA942245
	CARBIDE COATING CHIPPED BEYOND LIMITS. SEE MMIR'S #2243 THROUGH #2245 FOR ADDITIONAL BOLTS. BOLT S/N A561, A725 & A739.								

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6220	2258F	BELL				BOLT	COATING CHIPPED	1036	5/18/94
HEEA	33073	412			412010100193	412010124109	M/R		HEEA942243
	CARBIDE COATING CHIPPED BEYOND LIMITS. SEE MMIR'S #2243 THROUGH #2245 FOR ADDITIONAL BOLTS. BOLT S/N A357 & A365.								
6220	2258F	BELL				BOLT	COATING CHIPPED	1036	5/18/94
HEEA	33073	412			412010100193	412010124109	M/R		HEEA942244
	CARBIDE COATING CHIPPED BEYOND LIMITS. SEE MMIR'S #2243 THROUGH #2245 FOR ADDITIONAL BOLTS. BOLT S/N A390, A393 & A440.								
6220	2261D	BELL				BOLT	DEFECTIVE	580	5/18/94
HEEA	33076	412				412010124109	M/R		HEEA942208
	CARBIDE COATING FLAKING FROM BOLT. BOLT S/N A23, A29, & A745.								
6220	2148K	BELL				BEARING	WORN	456	4/17/94
HEEA	36001	412			412010406115	412310400107	M/R LINK		HEEA942230
	BEARING WORN BEYOND LIMITS.								
6220	2148K	BELL				BEARING	WORN	456	4/17/94
HEEA	36001	412			412010406115	412310400107	M/R LINK		HEEA942229
	BEARING WORN BEYOND LIMITS.								
6220	7128R	BELL				BEARING	WORN	722	4/28/94
HEEA	36007	412			412010406115	412310400107	M/R LINK		HEEA942231
	BEARING WORN BEYOND LIMITS.								
6240	142PH	BELL				DETECTOR	FAILED		4/21/98
HEEA	33150	412				214074280107	RPM LIMIT		HEEA0013999
	RPM LIMIT AUDIO DISABLED.								
6420	1202T	BELL				HUB ASSY	WORN		4/29/98
HEEA	33112	412				212011701101	T/R FEATHER BRG		HEEA0014064
	T/R HUB ASSY WORN FEATHERING BEARING. REPLACED BEARINGS AND RETURNED TO SERVICE.								
2612	CFHFW	BOEING				FIRE DETECTOR	FAILED		3/23/98
CHIR	107	1072				473275	OUTBOARD		CHI2088
	FIRE DETECTOR MALFUNCTION CAUSED FIRE LIGHT TO FALSELY ILLUMINATE. INSTALLED PER STC SR00375SE. (X)								
2612	CFHFW	BOEING			KIDDE	FIRE DETECTOR	MALFUNCTIONED		3/23/98
CHIR	107	1072				473275	AFT LOWER OTBD		CHI2087
	AFT LOWER OUTBOARD FIRE DETECTOR MALFUNCTION CAUSED FIRE LIGHT TO FALSELY ILLUMINATE. INSTALLED PER STC SR00375SE. (X)								
2312	4391S	BOLKMS				TRANSCEIVER	DEFECTIVE		5/9/94
HEEA	S787	BO105S			KY196	064101900	COCKPIT		HEEA942211
	TRANSCEIVER WARMS UP AND THEN SHUTS OFF. COULD NOT DUPLICATE PROBLEM. ADJUSTED MOD, SIDETONE AND SQUELCH AND FREQUENCY. BENCH CHECK GOOD.								
2435	81982	BOLKMS				STARTER	FAILED	6825	4/29/98
HEEA	S818	BO105S				23032048	ENGINE		HEEA0014070
	STARTER WILL NOT ENGAGE.								

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2562	54191	BOLKMS			NARCO	ELT	FAILED		4/22/98
HEEA	S804	BO105S				ELT10	BATTERY		HEEA0014026
	BATTERY INOPERATIVE. TIME SINCE REPAIR 0:00.								
2842	81992	BOLKMS				TRANSMITTER	FAILED	4	4/21/98
HEEA	S827	BO105S				DK042	FUEL IND		HEEA0014000
	TRANSMITS HIGH OUT OF TOLERANCE THROUGHOUT.								
3416	54191	BOLKMS			ACK	ENCODER	FLUCTUATES		4/4/94
HEEA	S804	BO105S				A30	COCKPIT		HEEA942136
	ENCODER OUTPUT FLUCTUATES 200 FEET CONTINOUSLY.								
3422	205BB	BOLKMS				GYRO	DEFECTIVE		3/3/94
HEEA	S58	BO105S			KG102A	060001500	COCKPIT		HEEA942209
	GYRO WILL NOT BECOME VALID AND HEADING IS UNSTABLE. TIME SINCE REPAIR 175:00.								
3422	4391S	BOLKMS				GYRO	TRIPS BREAKER		5/2/94
HEEA	S787	BO105S			KG102A	060001500	COCKPIT		HEEA942210
	GYRO POPS CIRCUIT BREAKER. TIME SINCE REPAIR 0:00.								
3452	5368F	BOLKMS				TRANSPONDER	INOP		4/18/94
HEEA	S718	BO105CB*			KT76	066106200	COCKPIT		HEEA942177
	TOWER REPORTED TRANSPONDER WAS NOT WORKING. TROUBLESHOT AND REPLACED V101 (TUBE), R441 (RESISTOR), R429 (RESISTOR). ADJUSTED THE RECEIVER AND TRANSMITTER. BENCH CHECK GOOD.								
3452	8197X	BOLKMS				TRANSPONDER	INOP		4/11/94
HEEA	S808	BO105S			KT76	066106200	COCKPIT		HEEA942174
	TRANSCEIVER INOPERATIVE. TROUBLESHOT AND ADJUSTED LOW POWER OUT. ALSO REPLACED DETERIORATED RESISTOR R477. REPAIRED PROBLEM. BENCH CHECK GOOD.								
3452	7136J	BOLKMS				TRANSPONDER	BROKEN		5/16/94
HEEA	S830	BO105S				066106200	COCKPIT		HEEA942213
	TRANSCEIVER FACE COVER BROKEN. REPLACED FACEPLATE ASSY, DETERIORATED RESISTOR R477 AND PHOTOCELL V301. ADJUSTED SIDE LOBE SUPRESSION. REPAIRED PROBLEM.								
5302	502AL	BOLKMS				PLATE	CRACKED		11/5/97
ALGR	S103	BO105C				1052180110033	TAILBOOM MOUNT		97ZZZX5134
	DISCOVERED DURING DAILY INSPECTION, WORKING RIVETS AT TAIL ROTOR DRIVESHAFT FORWARD ATTACH BRACKET. REMOVED BRACKET AND DISCOVERED PLATE CRACKED AT RIVET HOLE.								
6210	5352H	BOLKMS				BLADE	SEPARATION	7367	5/11/94
HEEA	S717	BO105CB*				10515170	M/R		HEEA942187
	SEPARATION ON THE INBOARD LEADING EDGE STRIP ON THE INBOARD END. THE OUTBOARD STRIP HAS EXCESSIVE AMOUNT OF EROSION NEAR THE TIP. SENT TO COMPOSITE TECHNICS FOR INSPECTION AND REPAIR.								
6210	5352H	BOLKMS				BLADE	SEPARATION	7367	5/11/94
HEEA	S717	BO105CB*				10515170	M/R		HEEA942186
	SEPARATION ON OUTBOARD END OF THE OUTBOARD STRIP. ALSO WITH EXCESSIVE EROSION ON THE LEADING EDGE ABRASION STRIP.								

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6210	205BB	BOLKMS				BLADE	DEFECTIVE	8417	1/26/94
HEEA	S58	BO105S				10587214	M/R		HEEA942222
	UNABLE TO GET SMOOTH RIDE IN FLIGHT WITH GOOD VISUAL TRACK .8 IPS VERTICAL. NOTE: WITH SMOOTH RIDE IN FLIGHT .7 IPS LATERAL ON GROUND. TIME SINCE REPAIR 15:55.								
6210	7136H	BOLKMS				BLADE	DEFECTIVE	6760	2/1/94
HEEA	S833	BO105S				10515141	M/R		HEEA942220
	UNABLE TO BALANCE M/R BLADE.								
6210	7136H	BOLKMS				BLADE	WONT TRACK	8777	2/3/94
HEEA	S833	BO105S				10515141	M/R		HEEA942221
	UNABLE TO TRACK BLADE IN FLIGHT - BLADE DIVES EXCESSIVELY. TIME SINCE REPAIR 1:00.								
6240	3520T	BOLKMS				WARNING BOX	FAILED		4/22/98
HEEA	S539	BO105S				KDW021A	ROTOR RPM		HEEA0014030
	INTERMITTENT LIGHT AND AUDIO AT 100% RPM.								
6240	6607K	BOLKMS				INDICATOR	INTERMITTENT		4/29/98
HEEA	S841	BO105S				206075681117	ROTOR		HEEA0014075
	ROTOR NEEDLE IS INTERMITTENT AND NOISY.								
6310	3071K	BOLKMS				INPUT PINION	WORN		4/29/98
HEEA	S859	BO105S			4638001004	4638302002	FREEWHEEL		HEEA0014062
	INPUT PINION BEARING JOURNAL WORN BEYOND LIMITS. REPLACED WITH NEW PINION.								
6710	50293	BOLKMS				BEARING	UNBONDED		4/29/98
HEEA	S677	BO105S			10545371	1054537110	MIXING LEVER		HEEA0014044
	TEFLON LINER UNBONDED AND BEARING VERY STIFF. UNABLE TO MOVE INNER RACE. REPLACED WITH NEW BEARING.								
6710	5031U	BOLKMS				BEARING	UNBONDED		4/29/98
HEEA	S678	BO105S			10545371	1054537110	MIXING LEVER		HEEA0014040
	TEFLON UNBONDING FROM BEARING. REPLACED WITH NEW BEARING.								
6710	133AE	BOLKMS				BEARING	UNBONDED		4/29/98
HEEA	S800	BO105S			10545371	1054537110	MIXING LEVER		HEEA0014041
	TEFLON UNBONDING FROM BEARING. REPLACED WITH NEW BEARING.								
6710	81992	BOLKMS				BEARING	UNBONDED		4/29/98
HEEA	S827	BO105S			10545371	1054537110	MIXING LEVER		HEEA0014043
	TEFLON LINER UNBONDED AND BEARING VERY STIFF. UNABLE TO MOVE INNER RACE. REPLACED WITH NEW BEARING.								
6710	135AE	BOLKMS				BEARING	UNBONDED		4/29/98
HEEA	S838	BO105S			10545371	1054537110	MIXING LEVER		HEEA0014042
	TEFLON UNBONDING FROM BEARING. REPLACED WITH NEW BEARING.								
7250	205BB	BOLKMS	ALLSN			WHEEL	SULFIDATION	1422	5/4/94
HEEA	S58	BO105C	250C20B		6898735	6886407	1ST STAGE		HEEA942239
	ENGINE REMOVED DUE TO HIGH CYCLED WHEELS. UPON INSPECTION OF TURBINE PARTS NOTED SULFIDATION ON 1ST STAGE WHEEL BLADES. PART SCRAPPED.								

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7250	131AE	BOLKMS	ALLSN			NOZZLE SHIELD	CRACKED	665	4/21/98
HEEA	S787	BO105S	250C20B		6898735	6890040	NR 1		HEEA0013994
	ENGINE REMOVED DUE TO TURBINE CYCLES. UPON INSPECTION OF TURBINE PARTS NOTED: CRACKED BEYOND SERVICEABLE LIMITS ON NR1 NOZZLE SHIELD INNER BAND AS MARKED AND CRACK AT POSITIONING LUGS AS MARKED.								
7250	133AE	BOLKMS	ALLSN			NOZZLE SHIELD	CRACKED	753	4/21/98
HEEA	S800	BO105S	250C20B		6898735	23062750	NR1		HEEA0014003
	ENGINE REMOVED DUE TO 3500 HOUR TURBINE OVERHAUL. UPON INSPECTION OF TURBINE PARTS NOTED: CRACKED BEYOND SERVICEABLE LIMITS ON NR1 NOZZLE SHIELD DOME AREA ABOUT 45% AROUND.								
7250	911EB	BOLKMS	ALLSN			TURBINE WHEEL	PITTED		4/21/98
HEEA	S812	BO105S	250C20B		6898735	6898782	2ND STAGE		HEEA0014001
	RECEIVING INSPECTION REVEALED: PITS BEYOND SERVICEABLE LIMITS ON NR2 WHEEL BLENDED AREA E (AFT) AS MARKED. NOTE: BLENDING OF THESE PITS WOULD EXCEED OVERHAUL LIMITS OF .050 DEEP. INSTALLED A NEW NR2 WHEEL.								
7250	8199J	BOLKMS	ALLSN			TURBINE WHEEL	DEFECTIVE	1738	4/20/98
HEEA	S826	BO105S	250C20B		23038241	6886407	1ST STAGE		HEEA0013981
	ENGINE REMOVED DUE TO TURBINE 1750 HOUR INSPECTION. UPON INSPECTION OF TURBINE PARTS NOTED: CATASTROPHIC SULFIDATION ON ALL NR1 WHEEL BLADES. SCRAPPED NR1 WHEEL AND REPLACED WITH SERVICEABLE PART.								
7250	8199J	BOLKMS	ALLSN			TURBINE WHEEL	DEFECTIVE	1738	4/20/98
HEEA	S826	BO105S	250C20B		23038241	23001967	3RD STAGE		HEEA0013980
	ENGINE REMOVED DUE TO TURBINE 1750 HOUR INSPECTION. UPON INSPECTION OF TURBINE PARTS NOTED: SEVERE SULFIDATION ON ALL NR3 WHEEL BLADES. SCRAPPED NR3 WHEEL AND REPLACED WITH SERVICEABLE PART.								
7250	7136J	BOLKMS	ALLSN			COUPLING	STEPWEAR	726	5/10/94
HEEA	S830	BO105S	250C20B		6898735	6898977	SPLINES		HEEA942241
	ENGINE REMOVED DUE TO LOW POWER. UPON INSPECTION OF TURBINE PARTS NOTED THE FOLLOWING: STEP WEAR IN EXCESS OF THE .001" OPERATION AND MAINTENANCE MANUAL LIMITS ON TURBINE TO COMPRESSOR COUPLING INTERNAL SPLINES. INSTALLED A NEW COUPLING.								
7260	131AE	BOLKMS	ALLSN			TUBE ASSY	WORN		4/21/98
HEEA	S787	BO105S	250C20B		6894171	6876925	ENG GR BOX		HEEA0014011
	ENGINE REMOVED DUE TO METAL. INSPECTION OF GEARBOX PARTS REVEALED: TUBE ASSY. FAILED DIMENSIONAL CHECK PER CEB1307. INSTALLED A NEW TUBE.								
7260	8199J	BOLKMS	ALLSN			TUBE ASSY	WORN	1719	4/21/98
HEEA	S826	BO105S	250C20B		6894171	6876925A	ENG GR BOX		HEEA0014010
	ENGINE REMOVED DUE TO METAL. INSPECTION OF GEARBOX PARTS REVEALED: TUBE ASSY. FAILED DIMENSIONAL CHECK PER CEB1307. INSTALLED A NEW TUBE.								
7321	352TT	BOLKMS	ALLSN			FUEL CONTROL	FAULTY		1/13/94
HEEA	S59	BO105S	250C20B			104900A5	ENGINE		HEEA942219
	FUE CONTROL INTERMITTENT-STAGNATION IN ACCELERATION FROM IDLE TO 70% N1 AND ABOVE.								
7714	9190Y	BOLKMS				TACH GENERATOR	FAILED		9/29/94
HEEA	S669	BO105CBS				AG44A202	NR 2 ENG		94ZZZX6878
	OUTBOUND FLIGHT, NR 2 ENGINE N2 TACHOMETER GENERATOR FAILED. RETURNED TO BASE. BO-105IPC, CHAPTER 2-604-00, FIGURE 604, ITEM 240.								
7923	9190F	BOLKMS				VALVE	TRIPS BREAKER		4/25/94
HEEA	S668	BO105S				209072433007	OIL SOV		HEEA942153
	POPS CIRCUIT BREAKER. INSPECTED BY ACCESSORY OVERHAUL SHOP AND FOUND SOLENOID IS SHORTED TO GROUND.								

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2150	191BK	BOLKMS				ELBOW	MIS MFG		4/29/98
HEEA	7146	BK117B1				117E00113	VENTURI		HEEA0014048
	VENTURI P/N 117-E0011-9 DOES NOT FIT PROPERLY IN ELBOW P/N 117-E0011-3. WELD BEADS ON INSIDE OF ELBOW DO NOT ALLOW VENTURI TO FIT FLUSH ON PLATE P/N 117-E0001-47. REPLACED WITH SERVICEABLE PART.								
2210	911NC	BOLKMS				SPAS COMPUTER	DEFECTIVE		1/22/94
HEEA	7026	BK117A3				11788292	COCKPIT		HEEA942227
	SPAS LIGHT ILLUMINATES AS SOON AS SWITCH IS PUT INTO POSITION - SPAS OPERATES NORMALLY IN FLIGHT.								
2312	911TL	BOLKMS				TRANSCEIVER	DEFECTIVE		5/4/94
HEEA	7198	BK117B1				064105430	COCKPIT		HEEA942212
	TRANSCEIVER NO DISPLAY.								
2612	460H	BOLKMS				DETECTOR	FAILED		4/24/98
RMXA	7142	BK117B1				17343624101	LOWER AFT		98ZZZX1703
	FOUND LOWER AFT FIRE DETECTOR STARTING TO SHORT INTERNALLY. REMOVED DEFECTIVE PART, INSTALLED SERVICEABLE PART.								
3310	911MZ	BOLKMS				CONTROL	OVERHEAT		11/1/97
	7098	BK117A3			830000501	1179203103	LIGHTS		97ZZZX5132
	INSPECTED RHEOSTAT, WIRING, AND INTENSITY CONTROL UNIT. FOUND CONTROL UNIT TO HAVE STRONG ELECTRICAL ODOR. REPLACED WITH NEW UNIT. OPS CHECK GOOD.								
3310	132AE	BOLKMS				POTENTIOMETER	DEFECTIVE	466	5/21/94
HEEA	7238	BK117B1				260T4641	COCKPIT		HEEA942248
	POTENTIOMETER CAUSES INSTRUMENT LIGHT TO BE FULL ON OR FULL OFF; WILL NOT DIM.								
3420	134AE	BOLKMS				INDICATOR	DEFECTIVE		4/22/98
HEEA	7237	BK117B2				4021541671	COCKPIT		HEEA0014032
	ARTIFICIAL HORIZ INDICATOR INTERNAL LIGHTS SHORTED.								
3457	911TL	BOLKMS				GPS	FAILED		4/20/98
HEEA	7198	BK117B1			SKYNAV 5000	0845000000	COCKPIT		HEEA0013985
	INTERMITTENTLY LOSING POWER AND SHUTTING DOWN. NOT AIRCRAFT WIRING. DOES SAME WHEN POWERED UP ON BENCH. FOUND UNIT TO LOCK UP AND CHANGES MODES WITHOUT PRESSING ANY KEYS.								
5610	136AE	BOLKMS				WINDOW	CRACKED	508	5/18/94
HEEA	7234	BK117B1				1172429702	COCKPIT RT		HEEA942246
	RIGHT WINDOW CRACKED.								
6410	911TG	BOLKMS				BLADE	CRACKED	1087	4/21/98
BAQA	7506	BK117B1				117317411	T/R		98ZZZX1704
	DURING A PRE-FLIGHT INSPECTION, THE MECHANIC FOUND A 3 INCH CRACK AT THE ROOT END OF TAIL ROTOR BLADE. THIS IS THE THIRD EVENT. 11-18-94, 198.4 HRS, S/N 116/118. 5-3-96, 1,050.1 HRS, S/N 103/104. 858.5 HOURS ON THE BLADES, SAME P/N.								
6520	911TL	BOLKMS				COVER	WORN	3102	4/29/98
HEEA	7198	BK117B1			4639003007	4639311010	T/R XMSN		HEEA0014063
	FORWARD BORE WORN FROM BEARING SPINNING. REPLACED WITH NEW COVER.								
6710	911RZ	BOLKMS				BEARING	UNBONDED		4/29/98
HEEA	7092	BK117A4			10545371	1054537110	MIXING LEVER		HEEA0014045
	TEFLON LINER UNBONDED AND BEARING VERY STIFF. UNABLE TO MOVE INNER RACE. REPLACED WITH NEW BEARING.								

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6710		BOLKMS				TUBE	MIS MFG		5/23/94
HEEA		BK117B1				YAJ119607200F	M/R		HEEA942205
	TUBE NOT THREADED ALL THE WAY FOR ROD ENDS.								
6730	132AE	BOLKMS				ACTUATOR	KICKS	462	5/17/94
HEEA	7238	BK117B1				741C000004	YAW SAS		HEEA942242
	YAW SAS KICKS OFF THEN ON INTERMITTENTLY.								
7320	967LS	BOLKMS	LYC			ACTUATOR	FAILED	181	4/16/98
BAQA	7067	BK117A3	LTS101650B1		AVP1	430110212	FLOW FENCE		98ZZZX1684
	INTERNAL BREAKDOWN OF AIR FLOW MODULATOR (FLOW FENCE ACTUATOR) CAUSED THE OCCURRENCE OF COMPRESSOR STALLS DURING APPROACH TO LANDING.								
7414	51699	ENSTRM	LYC			POINTS	FAILED		7/8/94
	416	F28C	HIO360E1AD		D4LN2021	10382585	RT MAG	1345	94ZZZX4574
	AIRCRAFT HAD PARTIAL POWER LOSS WITH REDUCTION OF POWER. PILOT FELT ROUGHNESS AND ENTERED AUTOROTATION. OFF-AIRPORT LANDING OKAY. ENGINE INSPECTION REVEALED RT SET OF MAG POINTS CLOSED SUFFICIENTLY ENOUGH TO CAUSE RT SIDE MAG POWER LOSS. INSTALLED NEW SET OF POINTS, P/N 10-382585-OP. OP CHECK OKAY.								
6520	369AW	HUGHES				GEARBOX	MAKING METAL		4/16/98
LS1R	470117D	369D				369D25400	T/R	1195	98ZZZX1702
	DURING ROUTINE INSPECTION, MECHANIC FOUND METAL AND EXCESSIVELY DARK OIL IN GEARBOX. REMOVED FOR REPAIR AND REPLACED WITH SERVICEABLE UNIT. CONTROL NR 98-4-8.								
2430	1546K	SKRSKY				RELAY	FAILED		4/29/98
HEEA	760082	S76A				A1077D	DC SYS		HEEA0014059
	RELAY CONTACTS STUCK. REPLACED WITH SERVICEABLE RELAY.								
2430	5435V	SKRSKY				TRANSFORMER	FAILED		4/22/98
HEEA	760158	S76A				6153A	DC SYS		HEEA0014027
	BURNING SMELL COMING FROM UNIT AND CAUSES TONE IN HEADSET.								
2611	1546K	SKRSKY				SMOKE DETECTOR	MALFUNCTION		5/1/98
HEEA	760082	S76A				30231R7B	ENGINE		HEEA0014103
	SMOKE DETECTOR GAVE INDICATION OF FIRE ONCE IN FLIGHT.								
2612	5427S	SKRSKY				DETECTOR	FAILED		9/29/94
HEEA	760168	S76A				473205	FWD FIRE SENSOR		94ZZZX6875
	IN CRUISE FLIGHT, FORWARD FIRE SENSOR LIGHT CAME ON. LANDED AT HOUSTON HOBBY. REPLACED FORWARD FLAME DETECTOR. S-76 IPC, CHAPTER 26-11-00, FIGURE 1, ITEM 21.								
2910	792CH	SKRSKY				LINE	PIN HOLE		10/17/94
HEEA	760193	S76A				7665103003053	NR 2 HYD SYS		94ZZZX6874
	NR 2 HYDRAULIC SYSTEM BECAME NOISEY AND PRESSURE BEGAN TO FLUCTUATE. FOUND DECK COVERED WITH HYDRAULIC OIL. PIN HOLE IN LINE. IPC CHAPTER 29-20-00, FIGURE 1, ITEM 18.								
3414	31217	SKRSKY				INDICATOR	FAILED		5/1/98
HEEA	760229	S76A				8502CS20LW	COCKPIT		HEEA0014102
	AIRSPEED INDICATOR INDICATES HIGH OUT OF TOLERANCE.								
3421	1547D	SKRSKY				INDICATOR	PRECESSES		5/1/98
HEEA	760077	S76A				125780	COCKPIT ADI		HEEA0014107
	ADI INDICATOR PRECESSING IN FLIGHT.								

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3425	1545K	SKRSKY				INDICATOR	INTERMITTENTLY		4/15/94
HEEA	760047	S76A				1113025	COCKPIT HSI		HEEA942225
	NAV FLAG AND DEVIATION BAR WORKS INTERMITTENTLY.								
3425	1546K	SKRSKY				INDICATOR	NEEDLE STICKS		4/23/94
HEEA	760082	S76A				1113025	COCKPIT HSI		HEEA942224
	HEADING NEEDLE STICKS. .								
3425	5435V	SKRSKY				INDICATOR	DEFECTIVE		3/23/94
HEEA	760158	S76A				1113025	COCKPIT HSI		HEEA942226
	INDICATOR CAUSES SECOND HSI TO BE 180 DEGREES OFF WHEN THIS UNIT IS IN THE COMMAND MODE. TIME SINCE REPAIR 0:00.								
3454	3122G	SKRSKY				RECEIVER	MALFUNCTION		5/2/94
HEEA	760232	S76A				066400700	COCKPIT		HEEA942181
	#2 NAV RADIO WOULD NOT TEST ON VOR FREQUENCY. INSPECTED FOR CORROSION, ADJUSTED VOR TRACKING, GLIDESCOPE CENTERING, GLIDESCOPE SENSE AND GLIDESCOPE SUPER FLAG. BENCH CHECK GOOD.								
5610	5435V	SKRSKY				WINDSHIELD	CRACKED		10/17/94
HEEA	760158	S76				7620601001110	PILOT'S		94ZZZX6879
	BRIGHT ARCING DEVELOPED IN PILOT'S WINDSHIELD. INVESTIGATION REVEALED ARCING AND CRACKS. IPC 56-10-00, FIGURE 1, PAGE 1, ITEM 13.								
6320	1546G	SKRSKY				SPUR GEAR	FRACTURED		4/27/98
HEER	760076	S76A				7635109032047	M/R GEARBOX		98ZZZX1706
*****	INVESTIGATION INTO A SERIES OF CHIP DETECTOR LIGHTS ON THE MAIN GEARBOX REVEALED THE SPUR GEAR HAD FRACTURED IN THREE PLACES. THE WEB OF THE GEAR HAD TWO SEPARATE FRACTURES AND THE SHAFT OF THE GEAR HAD ONE FRACTURE. TWO OF THE PINS (P/N HL12VLJ-8-5/6) THAT SECURE THE SPUR GEAR ASSEMBLY TOGETHER HAD ALSO SHEARED. MANY OTHER PINS SHOWED SIGNS OF WORKING. THE MAIN GEARBOX WAS OVERHAULED 227 OPERATING HOURS PRIOR TO THIS OCCURRENCE. THE SPUR GEAR IS NOT A LIFE LIMIT PART; THEREFORE, HISTORICAL RECORDS ARE NOT REQUIRED AND THE TOTAL TIME IN SERVICE OF THE GEAR IS NOT KNOWN AT THIS TIME.								
6410	1546G	SKRSKY				BLADE	ERODED	11725	4/22/98
HEEA	760076	S76A				7610105101041	T/R		HEEA0014016
	BOTH PRIMARY RUBBER ERRODED THROUGH AND PITCH HORN "A" IS DUE RETIREMENT.								
6510	4253S	SKRSKY				TUBE ASSY	SEPARATED		4/29/98
HEEA	760035	S76A			763610400704	S613764329002	T/R DRIVE		HEEA0014061
	T/R DRIVE TUBE SEPARATED BEYOND LIMITS. REPLACED WITH NEW TUBE ASSEMBLY.								
7230	792CH	SKRSKY	ALLSN			SPLINE ADAPTER	MIS MFG		4/30/98
HEEA	760193	S76A	250C30S		23051643	230052711	ENGINE		HEEA0014092
	RECEIVING INSPECTION REVEALED: O.D. MEASURED (.9853) .0002 UNDER SPECS ON SPLINE ADAPTER O.D. INSTALLED A NEW SPLINE ADAPTER.								
7250	5426U	SKRSKY	ALLSN			NOZZLE SHIELD	CRACKED	677	4/21/98
HEEA	760167	S76A	250C30S		23035128	23062752	NR 1		HEEA0013995
	ENGINE REMOVED DUE TO NR1 AND NR2 WHEEL CYCLES. UPON INSPECTION OF TURBINE PARTS NOTED: CRACKED BEYOND SERVICEABLE LIMITS ON NR1 NOZZLE SHIELD OUTER BAND.								
7250	5128	SKRSKY	ALLSN			NOZZLE SHIELD	CRACKED	615	4/22/98
HEEA	760181	S76A	250C30S		23035128	6892824	NR 1		HEEA0014025
	ENGINE REMOVED DUE TO TURBINE CYCLES. UPON INSPECTION OF TURBINE PARTS NOTED: CRACKED BEYOND SERVICEABLE LIMITS ON NR1 NOZZLE SHIELD DOME AS MARKED.								

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7322	706AE	SKRSKY				FUEL CONTROL	MALFUNCTIONED		4/29/98
HEEA	760275	S76A				25490925	ENGINE		HEEA0014051
	FUEL CONTROL MALFUNCTION. WILL NOT TOP. DROOPS @ 90% TORQUE. UNIT HAS EXPERIENCED STARTING PROBLEMS								
7714	1546K	SKRSKY				INDICATOR	FAILED		4/29/98
HEEA	760082	S76A				7645001076101	GAS GEN TACH		HEEA0014076
	GAS GEN TACH NO INDICATION ON DISPLAY OR ANALOG.								
2823	350BZ	SNIAS				VALVE	STUCK	839	4/29/98
HEEA	2653	AS350B2				857A1641	FUEL SYS		HEEA0014066
	VALVE STUCK.								
3412	6095S	SNIAS				THERMOMETER	READS HIGH	7	5/14/94
HEEA	2777	AS350B				K150	COCKPIT		HEEA942238
	THERMOMETER INDICATES 6 DEGREES HIGH.								
3416	350BZ	SNIAS				ALTIMETER	ERROR	349	4/21/94
HEEA	2653	AS350B				5934P1	COCKPIT		HEEA942155
	ALTIMETER READS ERRONEOUSLY.								
5270	350BZ	SNIAS				SWITCH	INOP	368	5/2/94
HEEA	2653	AS350B				SP381200	LT DOOR		HEEA942154
	DOOR SWITCH INOPERATIVE.								
6230	4000L	SNIAS				LINK	WORN	1612	4/30/98
HEEA	2873	AS350B2				350A37112601	M/R		HEEA0014094
	SISSORS LINK BUSHING WORN.								
6230	398MA	SNIAS				BEARING	DETERIORATED	2774	4/27/98
	1856	AS350BA			350A37000305	L522110V	M/R SHAFT		98ZZZX1681
	LOWER MAST BEARING OUTER RACE DETERIORATING, MAKING METAL. SUBMITTER STATED ENSURE CORRECT MAST BEARING SHIMMING.								
6321	40466	SNIAS				BRAKE	WORN	533	4/20/98
HEEA	3004	AS350B2				350A32050002	ROTOR		HEEA0013977
	ROTOR BRAKE OIL SOAKED AND WORN.								
6330	6100R	SNIAS				BEARING	SEPARATION		4/29/98
HEEA	2862	AS350B2			355A12004008	579063	M/R XMSN MT		HEEA0014065
	RUBBER SEPARATION ON 4 EACH BEARINGS.								
6410	333AS	SNIAS				BEARING	DELAMINATED		10/9/97
QKLA	2893	AS350B2				355A09103601	T/R		98ZZZX1644
	BEARING REMOVED DUE TO DELAMINATION IN EXCESS OF LIMITS. REPLACED WITH NEW BEARING SET.								
6420	4000L	SNIAS				BEARING	WORN	965	4/20/98
HEEA	2873	AS350B2				350A33211905	T/R		HEEA0013979
	T/R HEAD BEARINGS WORN.								

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6520	333AS	SNIAS				BEARING	DELAMINATED		10/9/97
QKLA	2893	AS350B2				350A33215300	T/R		98ZZZX1643
	BEARING REMOVED DUE TO DELAMINATION IN EXCESS OF LIMITS. REPLACED WITH NEW BEARINGS.								
7933	6095S	SNIAS				TEMP PROBE	FAILED	2620	4/30/98
HEEA	2777	AS350B2				646600251	ENG OIL TEMP		HEEA0014095
	TEMP PROBE INOPERATIVE.								
7200	914ET	UROCOP	PWA			ENGINE	MALFUNCTIONED	178	3/29/98
HDNA		EC135P1	PW206B				NR 1		98ZZZX1699
	TWO MINUTES AFTER TAKEOFF, POWER DECREASED TO 20 - 40 PERCENT OF NORMAL ON NR 1 ENGINE. RETURNED FOR PRECAUTIONARY LANDING. ENGINE APPEARED TO FUNCTION NORMALLY BELOW 50 PERCENT TORQUE, ABOVE 50 PERCENT, TORQUE WOULD DECREASE. NO FURTHER INCIDENT OCCURRED. AIRCRAFT SHUT DOWN. ELECTRICAL CONNECTIONS CHECKED. OPERATIONAL CHECK FLIGHT PERFORMED AND RETURNED TO SERVICE.								

(End of DOMESTIC SERVICE DIFFICULTY REPORT SUMMARY - HELICOPTERS)

DOMESTIC SERVICE DIFFICULTY REPORT SUMMARY - ENGINES

ATA OPER	REG. NO SERIAL NO	ACFT MAKE ACFT MODEL	ENG MAKE ENG MDL	PROP MAKE PROP MDL	COMP MFG COMP MDL	PART NAME PART NUMBER	PART COND PART LOC.	TT TSO	DIFF. DATE OPER CONT NO
7320	942MS	AEROSP	ALLSN			CABLE	FRAYED	99	4/27/98
	5498	AS355F2	250C20F			704A34130163	NR 2 N2 CONTROL		98ZZZX1683
	CABLE FRAYED AND BEARING WORN OUT CAUSING BINDING OF N2 LINKAGE. SUBMITTER SUGGESTED INSTALLING A BETTER, MORE RELIABLE SYSTEM.								
7414	247RJ	AMTRMO	AMTRVW			DRIVE COUPLING	FAILED		4/17/98
	999	SONERAI2	VW2200VOLKS				ENGINE MAGNETO		98ZZZX1697
*****	THE CAST ALUMINUM MAGNETO DRIVE COUPLING WHICH IS KEYED TO THE FLYWHEEL BROKE INTO FOUR PIECES. THE RESULTANT FRICTION MELTED AND FUSED A PORTION OF THE BROKEN PIECES OF THE COUPLING TO THE STATIONARY CROSS MEMBER ENGINE MOUNT. THIS FAILURE OF THE MAGNETO COUPLING RESULTED IN THE FAILURE OF THE ENGINE DURING CRUISE AND ULTIMATELY THE ACCIDENT WHICH DESTROYED THE AIRCRAFT AND INJURED THE PILOT. THE COUPLING BROKE AT THE KEYWAYS AND SHOWED EVIDENCE OF PRE-EXISTING CRACKS POSSIBLY CASTING FLAWS. SUBMITTER RECOMMENDED THE MAGNETO DRIVE COUPLING BE MILLED FROM A SOLID PIECE OF HIGH GRADE ALUMINUM AND ALL EDGES BE RADIUSED TO PREVENT CRACKING.								
7230	50046	BELL	ALLSN			CARBON SEAL	WORN	358	4/21/98
HEEA	45173	206L1	250C28B		23033191	23004513	ENG COMP		HEEA0014005
	ENGINE REMOVED DUE TO TURBINE OVERHAUL. INSPECTION OF COMPRESSOR PARTS REVEALED: WORN BEYOND SERVICEABLE LIMITS ON SEAL HOUSING TANGS. INSTALLED A NEW SEAL.								
7230	2764F	BELL	ALLSN			CARBON SEAL	WORN	368	4/21/98
HEEA	45279	206L1	250C28B		23033191	23004513	ENG COMP		HEEA0014008
	ENGINE REMOVED DUE TO COMPRESSOR HIGH TIME IMPELLER. INSPECTION OF COMPRESSOR PARTS REVEALED: WORN BEYOND SERVICEABLE LIMITS ON SEAL TANGS AND TANG SLOTS. INSTALLED A NEW SEAL.								
7230	2770Y	BELL	ALLSN			GEAR	WORN	630	4/21/98
HEEA	45291	206L1	250C28B		23033191	23056634	SPUR ADAPTER		HEEA0014009
	ENGINE REMOVED DUE TO TURBINE OVERHAUL. INSPECTION OF COMPRESSOR PARTS REVEALED: STEP WEAR BEYOND SERVICEABLE LIMITS ON SPUR GEARSHAFT AFT SPLINES (FAILED NO-GO GAUGE) INSTALLED A NEW SPUR GEAR.								
7230	2772A	BELL	ALLSN			CARBON SEAL	WORN	352	4/21/98
HEEA	45311	206L1	250C28B		23033191	23004513	ENG COMP		HEEA0014006
	ENGINE REMOVED DUE TO CRACKED SCROLL. INSPECTION OF COMPRESSOR PARTS REVEALED: WORN BEYOND SERVICEABLE LIMITS ON SEAL TANGS AND TANG SLOTS. INSTALLED A NEW SEAL.								
7230	27766	BELL	ALLSN			GEARSHAFT	STEPWEAR	224	5/1/94
HEEA	45312	206L1	250C28B		23033191	23008090	SPUR ADAPTER		HEEA942141
	ENGINE REMOVED DUE TO LOW POWER. UPON INSPECTION OF COMPRESSOR PARTS NOTED STEP WEAR BEYOND LIMITS ON SPUR ADAPTER GEARSHAFT FORWARD AND AFT SPLINES. INSTALLED NEW SPUR ADAPTER GEARSHAFT.								
7230	8590X	BELL	ALLSN			GEARSHAFT	STEP WEAR	817	4/28/94
HEEA	51494	206L3	250C30P		23033193	23008090	SPUR ADAPTER		HEEA942140
	ENGINE REMOVED DUE TO HIGH CYCLED WHEELS. UPON INSPECTION OF COMPRESSOR PARTS NOTED STEP WEAR BEYOND LIMITS ON SPUR ADAPTER GEARSHAFT AFT SPLINES. INSTALLED NEW SPUR ADAPTER GEARSHAFT.								
7230	8592X	BELL	ALLSN			CARBON SEAL	WORN	928	4/21/98
HEEA	51508	206L3	250C30P		23051643	23004513	ENG COMP		HEEA0014007
	ENGINE REMOVED DUE TO CRACKED SCROLL. INSPECTION OF COMPRESSOR PARTS REVEALED: WORN BEYOND SERVICEABLE LIMITS ON SEAL TANGS AND TANG SLOTS. INSTALLED A NEW SEAL.								

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7250	49573	BELL	ALLSN			BEARING	FAILED	921	3/30/98
	1665	206B	250C20B			A6871505	TURBINE NR 5		98ZZZX1682
	AFTER A NORMAL FLIGHT (EXTERNAL LOAD) AND SHUT-DOWN, THE PILOT REPORTED AN ABNORMAL NOISE WHILE TURNING ROTOR BACKWARDS TO TIE-DOWN POSITION. UPON REMOVAL OF THE TURBINE MODULE, THE FORWARD HALF OF THE NR 5 BEARING INNER CAGE FELL OUT. (THIS IS A 1-PIECE UNIT, NOT 2) THIS BEARING IS THE SUBJECT OF AD 96-19-01. THERE HAD BEEN NO PREVIOUS SIGNS OF DISTRESS, I.E., CHIP LIGHTS, ETC. ENGINE OIL FILTER REMAINS CLEAN AT REMOVAL OF TURBINE. SUSPECT THAT BEARING FAILED AFTER SHUT DOWN IN THAT AT OPERATIONAL SPEED NEAR 60K RPM, MAJOR TURBINE DAMAGE WOULD HAVE OCCURRED IN MILLI-SECONDS. REPLACED WITH OEM BEARING.								
7250	104PH	BELL	ALLSN			COUPLING	WORN	697	4/21/98
HEEA	3622	206B3	250C20B		6898735	6898977	ENGINE N1		HEEA0014002
	ENGINE REMOVED DUE TO TURBINE OVERHAUL. UPON INSPECTION OF TURBINE PARTS NOTED: N1 COUPLING FAILED NO-GO GAUGE. INSTALLED A NEW N1 COUPLING.								
7250	27766	BELL	ALLSN			COUPLING	STEPWEAR	320	5/1/94
HEEA	45312	206L1	250C28B		23033185	23032345	N1		HEEA942142
	ENGINE REMOVED DUE TO LOW POWER. UPON INSPECTION OF TURBINE PARTS NOTED STEP WEAR BEYOND LIMITS ON N1 COUPLING SPLINES. INSTALLED NEW N1 COUPLING.								
7250	5737T	BELL	ALLSN			WHEEL	SULFIDATION	1489	4/25/94
HEEA	45454	206L1	250C28B		23031899	6895801	1ST STSGE		HEEA942143
	ENGINE REMOVED DUE TO TURBINE OVERHAUL. UPON INSPECTION OF TURBINE PARTS NOTED SULFIDATION ON 1ST STAGE WHEEL BLADES.								
7250	2250U	BELL	ALLSN			WHEEL	SULFIDATION	820	5/18/94
HEEA	45754	206L1	250C28B		23033185	6895801	1ST STAGE		HEEA942240
	ENGINE WAS REMOVED DUE TO WHINING AT ALL POWER SETTINGS. UPON INSPECTION OF TURBINE PARTS NOTED SULFICATION ON 1ST STAGE WHEEL BLADES. PART SCRAPPED.								
7261	2125M	BELL	ALLSN			ELEMENT	FAILED		5/23/94
HEEA	45649	206L1	250C30			03808808	ENG OIL		HEEA942237
	BYPASS BUTTON POPPED.								
7261	108W	BELL	ALLSN			TUBE	CHAFED	2100	3/12/98
	52034	206L4	250C30P			23058110A	SCAVENGE OIL		98ZZZX1701
*****	WHILE REMOVING RENTAL ENGINE AND TRANSFERRING HARD LINE P/N 23058110-A FROM RENTAL ENGINE TO ORIGINAL ENGINE, SEVERE CHAFING NOTED UNDER ADEL CLAMP. THIS IS SCAVENGE OIL LINE FROM BOTTOM OF COMPRESSOR TO THE N1 SIDE OF GEARBOX. ABRASIVE DUST AND AIRBORNE DIRT CREEPS IN BETWEEN HARD RUBBER ADEL CLAMP AND OIL LINE AND CHAFES OR WEARS OIL LINE TO THE POINT OF FAILURE. THE NEED EXISTS FOR CLAMPING DEVICES THAT WOULD ELIMINATE THIS CHAFING CONDITION. IN THE MEANTIME, INSPECTION UNDER CLAMPED AREAS IS PRUDENT TO AVOID AN UNSUSPECTED FAILURE.								
7261	230UN	BELL				SHAFT SEAL	LEAK	524	4/29/94
HEEA	23009	230				6854424	NR 2 ENG		HEEA942146
	NR2 ENGINE HAS OIL LEAK. REMOVED AND REPLACED GARLOCK SEAL.								
7261	407MM	BELL				FILTER ELEMENT	CLOGGED		4/29/98
HEEA	53060	407				23063144	ENG OIL		HEEA0014047
	ON DAILY INSPECTION FOUND OIL FILTER BYPASS BUTTON POPPED. REPLACED WITH SERVICEABLE FILTER.								
7250	205BB	BOLKMS	ALLSN			WHEEL	SULFIDATION	1422	5/4/94
HEEA	S58	BO105C	250C20B		6898735	6886407	1ST STAGE		HEEA942239
	ENGINE REMOVED DUE TO HIGH CYCLED WHEELS. UPON INSPECTION OF TURBINE PARTS NOTED SULFIDATION ON 1ST STAGE WHEEL BLADES. PART SCRAPPED.								
7250	131AE	BOLKMS	ALLSN			NOZZLE SHIELD	CRACKED	665	4/21/98
HEEA	S787	BO105S	250C20B		6898735	6890040	NR 1		HEEA0013994
	ENGINE REMOVED DUE TO TURBINE CYCLES. UPON INSPECTION OF TURBINE PARTS NOTED: CRACKED BEYOND SERVICEABLE LIMITS ON NR1 NOZZLE SHIELD INNER BAND AS MARKED AND CRACK AT POSITIONING LUGS AS MARKED.								

ATA OPER	REG. NO SERIAL NO	ACFT MAKE ACFT MODEL	ENG MAKE ENG MDL	PROP MAKE PROP MDL	COMP MFG COMP MDL	PART NAME PART NUMBER	PART COND PART LOC.	TT TSO	DIFF. DATE OPER CONT NO
7250	133AE	BOLKMS	ALLSN			NOZZLE SHIELD	CRACKED	753	4/21/98
HEEA	S800	BO105S	250C20B		6898735	23062750	NR1		HEEA0014003
	ENGINE REMOVED DUE TO 3500 HOUR TURBINE OVERHAUL. UPON INSPECTION OF TURBINE PARTS NOTED: CRACKED BEYOND SERVICEABLE LIMITS ON NR1 NOZZLE SHIELD DOME AREA ABOUT 45% AROUND.								
7250	911EB	BOLKMS	ALLSN			TURBINE WHEEL	PITTED		4/21/98
HEEA	S812	BO105S	250C20B		6898735	6898782	2ND STAGE		HEEA0014001
	RECEIVING INSPECTION REVEALED: PITS BEYOND SERVICEABLE LIMITS ON NR2 WHEEL BLENDED AREA E (AFT) AS MARKED. NOTE: BLENDING OF THESE PITS WOULD EXCEED OVERHAUL LIMITS OF .050 DEEP. INSTALLED A NEW NR2 WHEEL.								
7250	8199J	BOLKMS	ALLSN			TURBINE WHEEL	DEFECTIVE	1738	4/20/98
HEEA	S826	BO105S	250C20B		23038241	6886407	1ST STAGE		HEEA0013981
	ENGINE REMOVED DUE TO TURBINE 1750 HOUR INSPECTION. UPON INSPECTION OF TURBINE PARTS NOTED: CATASTROPHIC SULFIDATION ON ALL NR1 WHEEL BLADES. SCRAPPED NR1 WHEEL AND REPLACED WITH SERVICEABLE PART.								
7250	8199J	BOLKMS	ALLSN			TURBINE WHEEL	DEFECTIVE	1738	4/20/98
HEEA	S826	BO105S	250C20B		23038241	23001967	3RD STAGE		HEEA0013980
	ENGINE REMOVED DUE TO TURBINE 1750 HOUR INSPECTION. UPON INSPECTION OF TURBINE PARTS NOTED: SEVERE SULFIDATION ON ALL NR3 WHEEL BLADES. SCRAPPED NR3 WHEEL AND REPLACED WITH SERVICEABLE PART.								
7250	7136J	BOLKMS	ALLSN			COUPLING	STEPWEAR	726	5/10/94
HEEA	S830	BO105S	250C20B		6898735	6898977	SPLINES		HEEA942241
	ENGINE REMOVED DUE TO LOW POWER. UPON INSPECTION OF TURBINE PARTS NOTED THE FOLLOWING: STEP WEAR IN EXCESS OF THE .001" OPERATION AND MAINTENANCE MANUAL LIMITS ON TURBINE TO COMPRESSOR COUPLING INTERNAL SPLINES. INSTALLED A NEW COUPLING.								
7260	131AE	BOLKMS	ALLSN			TUBE ASSY	WORN		4/21/98
HEEA	S787	BO105S	250C20B		6894171	6876925	ENG GR BOX		HEEA0014011
	ENGINE REMOVED DUE TO METAL. INSPECTION OF GEARBOX PARTS REVEALED: TUBE ASSY. FAILED DIMENSIONAL CHECK PER CEB1307. INSTALLED A NEW TUBE.								
7260	8199J	BOLKMS	ALLSN			TUBE ASSY	WORN	1719	4/21/98
HEEA	S826	BO105S	250C20B		6894171	6876925A	ENG GR BOX		HEEA0014010
	ENGINE REMOVED DUE TO METAL. INSPECTION OF GEARBOX PARTS REVEALED: TUBE ASSY. FAILED DIMENSIONAL CHECK PER CEB1307. INSTALLED A NEW TUBE.								
7321	352TT	BOLKMS	ALLSN			FUEL CONTROL	FAULTY		1/13/94
HEEA	S59	BO105S	250C20B			104900A5	ENGINE		HEEA942219
	FUE CONTROL INTERMITTENT-STAGNATION IN ACCELERATION FROM IDLE TO 70% N1 AND ABOVE.								
7320	967LS	BOLKMS	LYC			ACTUATOR	FAILED	181	4/16/98
BAQA	7067	BK117A3	LTS101650B1		AVP1	430110212	FLOW FENCE		98ZZZX1684
	INTERNAL BREAKDOWN OF AIR FLOW MODULATOR (FLOW FENCE ACTUATOR) CAUSED THE OCCURRENCE OF COMPRESSOR STALLS DURING APPROACH TO LANDING.								
7322	7201Q	CESSNA	LYC		FACET	CARBURETOR	WORN	3149	4/6/98
	17260501	172L	O320E2D		MA4SPA	105217	FUEL INLET	548	98ZZZX1655
	FUEL INLET FITTING HAD STRIPED THREADS OUT OF CARBURETOR HOUSING AND LEAKING FUEL. INSTALLED REBUILT PART.								
8530	9477L	CESSNA	LYC			VALVE GUIDE	DEFECTIVE		4/9/98
	17276562	172P	O320D2J				NR 3 CYL EXH VLV	1400	98ZZZX1675
	ON TAKEOFF, A MOMENTARY ENGINE ROUGHNESS PROMPTED THE PILOT TO ABORT TAKEOFF. THE AIRCRAFT EXCEEDED RUNWAY LENGTH AND STRUCK AN ANTENNA. INSPECTION OF THE ENGINE REVEALED A BUILD-UP OF CARBON IN THE NR 3 EXHAUST VALVE GUIDE. NOTE: ALL EXHAUST VALVE GUIDES WERE REAMED APPROXIMATELY 650 HRS PRIOR TO INCIDENT. AFTER INCIDENT, ENGINE RUN-UP WAS NORMAL.								

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7322	1331S	CESSNA	CONT		FACET	CARBURETOR	WORN		11/5/97
	18264895	182P	O470S		MA45	1048931	MIX LEVER		97ZZZX5128
	INSPECTION OF ENGINE AFTER EMERGENCY LANDING FOUND WHEN MIXTURE WAS FULL RICH, MIXTURE LEVER ON CARBURETOR COULD BE PUSHED TO FULL LEAN WHILE CONTROL CABLE STAYED. CABLE ATTACH BOLT WAS NOT WORN AT ALL, BUT CONTROL LEVER DID HAVE A GROOVE WORN INTO IT ALLOWING LEVER TO MOVE. THE ORIGINAL LOG BOOKS WERE LOST IN 1984. NO LOG BOOK ENTRY SINCE THEN TO INDICATE REPAIR OR OVERHAUL OF CARBURETOR. TOTAL TIME OF AIRCRAFT AND ENGINE, 1,809.1 HOURS. IT IS UNKNOWN IF ENGINE WAS EVER OVERHAULED.								
8550	3341U	CESSNA	CONT			T-FITTING	CRACKED		4/1/98
	18254741	182F	O470R			AN9171D	TURBO LT SIDE		98ZZZX1660
	INSPECTION FOR AN OIL LEAK FOUND THE T-FITTING THAT FEEDS OIL PRESSURE TO BOTH TURBOS WAS CRACKED. THE FITTING IS LOCATED JUST AFT OF THE LEFT TURBO. IF THE LEAK HAD GONE UNNOTICED, THERE IS A SUBSTANTIAL POSSIBILITY OF AN ENGINE FIRE. RECOMMEND USING BRASS OR STEEL FITTING NEAR TURBOCHARGERS INSTEAD OF ORIGINAL ALUMINUM ONES CALLED OUT FOR IN RAJAY TURBO CONVERSION.								
8520	756QP	CESSNA	CONT			CRANKCASE	CRACKED	580	4/14/98
	U20604274	U206G	IO520F				NR 6 CYL STUD		98ZZZX1670
	THE CRANKCASE SPLIT FROM NR 6 CYLINDER HOLE TO OIL FILLER HOLE ON TOWARD TO THE FRONT OF THE CASE. THIS OCCURRED IN CONJUNCTION WITH THE CYLINDER MOUNTING STUD IN THIS IMMEIDATE AREA FAILING. THE CIRCUMSTANCES UNDER WHICH IT OCCURED WERE 'NORMAL OPERATION'. SUSPECT CAUSE - OVERTORQUEING OF SAID CYLINDER STUD BOLT.								
7414	51699	ENSTRM	LYC			POINTS	FAILED		7/8/94
	416	F28C	HIO360E1AD		D4LN2021	10382585	RT MAG	1345	94ZZZX4574
	AIRCRAFT HAD PARTIAL POWER LOSS WITH REDUCTION OF POWER. PILOT FELT ROUGHNESS AND ENTERED AUTOROTATION. OFF-AIRPORT LANDING OKAY. ENGINE INSPECTION REVEALED RT SET OF MAG POINTS CLOSED SUFFICIENTLY ENOUGH TO CAUSE RT SIDE MAG POWER LOSS. INSTALLED NEW SET OF POINTS, P/N 10-382585-OP. OP CHECK OKAY.								
7414	59829	PIPER	LYC		ELECTROSYS	MAGNETO	FAILED	1602	11/25/97
	317652081	PA31350	TIO540J2BD				DISTRIB GEARS		97ZZZX5130
	AFTER DEPARTURE AND CLIMBING THROUGH 1,200 FEET AGL, PILOT REPORTED THE LEFT ENGINE POPPED TWICE AND SHUT DOWN. UPON INSPECTION, FOUND THE MAGNETO DISTRIBUTOR DRIVE GEARS WERE STRIPPED. ALSO NOTED WAS THE BUSHING IN THE DISTRIBUTOR WAS WORN OUT.								
7414	59829	PIPER	LYC		ELECTROSYS	DISTRIBUTOR GEAR	CRACKED	1091	12/31/97
YECR	317652081	PA31350	TIO540J2BD		D6LN3200	10682016	MAGNETO	142	98ZZZX1664
	MAGNETO WAS INSTALLED ON LEFT ENGINE 11-24-97, AND WAS REMOVED 12-31-97 DUE TO CRACKED, MISSING TOOTH. PREVIOUS MAGNETO HAD SUFFERED FAILURES OF BOTH DIST GEARS. SUSPECT TORSIONAL VIBRATION IN ENGINE.								
7414	59829	PIPER	LYC		ELECTROSYS	DISTRIBUTOR GEAR	CRACKED	1601	11/24/97
YECR	317652081	PA31350	TIO540J2BD		D6LN2230	10682016	MAGNETO		98ZZZX1665
	11-24-97, MAGNETO WAS REMOVED FROM LEFT ENGINE OF N NR 59829 DUE TO FAILED DISTRIBUTOR GEAR TEETH. MAGNETO HAD 1,601.16 HOURS SINCE OVERHAUL BY ELECTROSYSTEMS, INC., HOWEVER, GEARS MAY NOT HAVE BEEN NEW AT MAGNETO OVERHAUL.								
7230	792CH	SKRSKY	ALLSN			SPLINE ADAPTER	MIS MFG		4/30/98
HEEA	760193	S76A	250C30S		23051643	230052711	ENGINE		HEEA0014092
	RECEIVING INSPECTION REVEALED: O.D. MEASURED (.9853) .0002 UNDER SPECS ON SPLINE ADAPTER O.D. INSTALLED A NEW SPLINE ADAPTER.								
7250	5426U	SKRSKY	ALLSN			NOZZLE SHIELD	CRACKED	677	4/21/98
HEEA	760167	S76A	250C30S		23035128	23062752	NR 1		HEEA0013995
	ENGINE REMOVED DUE TO NR1 AND NR2 WHEEL CYCLES. UPON INSPECTION OF TURBINE PARTS NOTED: CRACKED BEYOND SERVICEABLE LIMITS ON NR1 NOZZLE SHIELD OUTER BAND.								
7250	5128	SKRSKY	ALLSN			NOZZLE SHIELD	CRACKED	615	4/22/98
HEEA	760181	S76A	250C30S		23035128	6892824	NR 1		HEEA0014025
	ENGINE REMOVED DUE TO TURBINE CYCLES. UPON INSPECTION OF TURBINE PARTS NOTED: CRACKED BEYOND SERVICEABLE LIMITS ON NR1 NOZZLE SHIELD DOME AS MARKED.								

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7322	706AE	SKRSKY				FUEL CONTROL	MALFUNCTIONED		4/29/98
HEEA	760275	S76A				25490925	ENGINE		HEEA0014051
	FUEL CONTROL MALFUNCTION. WILL NOT TOP. DROOPS @ 90% TORQUE. UNIT HAS EXPERIENCED STARTING PROBLEMS								
7200	914ET	UROCOP	PWA			ENGINE	MALFUNCTIONED	178	3/29/98
HDNA		EC135P1	PW206B				NR 1		98ZZZX1699
	TWO MINUTES AFTER TAKEOFF, POWER DECREASED TO 20 - 40 PERCENT OF NORMAL ON NR 1 ENGINE. RETURNED FOR PRECAUTIONARY LANDING. ENGINE APPEARED TO FUNCTION NORMALLY BELOW 50 PERCENT TORQUE, ABOVE 50 PERCENT, TORQUE WOULD DECREASE. NO FURTHER INCIDENT OCCURRED. AIRCRAFT SHUT DOWN. ELECTRICAL CONNECTIONS CHECKED. OPERATIONAL CHECK FLIGHT PERFORMED AND RETURNED TO SERVICE.								

(End of DOMESTIC SERVICE DIFFICULTY REPORT SUMMARY - ENGINES)

DOMESTIC SERVICE DIFFICULTY REPORT SUMMARY - COMPONENTS

ATA OPER	REG. NO SERIAL NO	ACFT MAKE ACFT MODEL	ENG MAKE ENG MDL	PROP MAKE PROP MDL	COMP MFG COMP MDL	PART NAME PART NUMBER	PART COND PART LOC.	TT TSO	DIFF. DATE OPER CONT NO
3425	866MP	AEROSP				SYNCHRO	DEFECTIVE		4/9/94
HEEA	5089	AS355F1			KA51A	071105304	COCKPIT HSI		HEEA942216
	HSI 20 DEGREES - 100 DEGREES OFF.								
3452	5785Y	AEROSP				TRANSPONDER	INOP		5/7/94
HEEA	5105	AS355F1			KT76	066106200	COCKPIT		HEEA942178
	TRANSPONDER PUTS OUT NO SIGNAL. TROUBLESHOT AND REPLACED TRANSISTOR Q415, CAVITY OSCILLATOR V101 AND ADJUSTED 9 VOLT POWER SUPPLY. REPAIRED PROBLEM.								
3425	789DS	BEECH				FLIGHT DIRECTOR	FAILED		4/20/98
HEEA	BB478	200BEECH				4018369902	COCKPIT		HEEA0013989
	FLT DIR INOPERATIVE.								
3441	500PH	BEECH				PROCESSOR UNIT	FAILED		5/1/98
HEEA	BL29	200BEECH				6222898012	COCKPIT		HEEA0014101
	RNAV PROCESSOR UNIT HAS SOME SEGMENTS THAT ARE INOPERATIVE.								
3418	163SP	BEECH				LIFT DETECTOR	SHORTED	219	11/21/97
RT2R	TE872	E55				1513	SWITCH		97ZZZX5114
*****	AIRCRAFT WAS ON RAMP AFTER LANDING IN WET SNOW. WITH ADDITIONAL SNOW ACCUMULATING ON THE AIRCRAFT, THE STALL WARNING HORN BEGAN TO SOUND. PILOT SILENCED HORN WITH CIRCUIT BREAKER AND ADVISED MAINTENANCE. LIFT DETECTOR WAS FOUND SHORTED INTERNALLY. AFTER EXTERNAL HEATING OF THE LIFT DETECTOR TO REMOVE MOISTURE, FUNCTION CHECKS WERE NORMAL. SUBMITTER RECOMMENDS MANUFACTURER USE ENVIRONMENTALLY SEALED MICROSWITCH IN THE LIFT DETECTOR ASSEMBLY TO AVOID FALSE STALL INDICATIONS.								
3454	216HA	BEECH			COLLINS	RECEIVER	BURNED	10186	3/13/98
	TH733	58				6222080011	COCKPIT NAV		98ZZZX1658
	AIRCRAFT DEPARTED RIC. EN ROUTE, CREW NOTED BURNED ODOR AND THE NAV UNIT EMITTED SMOKE (A WHISP). CREW PULLED THE CIRCUIT BREAKER OF THE AFFECTED UNIT AND RETURNED TO RIC.								
2312	2272V	BELL				TRANSCEIVER	MALFUNCTION		4/14/94
HEEA	3621	206B				064105430	COCKPIT		HEEA942171
	SCRATCHY RECEPTION ON 123:00. DISPLAY GOING OUT. VERIFIED FAULTY DISPLAY; BUT NO RECEPTION PROBLEM. REPLACED DS901 DISPLAY AND REPAIRED. BENCH CHECK GOOD.								
2312	6251X	BELL				RECEIVER	FAILED		4/22/98
HEEA	51552	206L3			KX155	069102435	NAV/COMM		HEEA0014013
	NAV COMM RECEIVER NO DISPLAY.								
2312	6160Z	BELL				TRANSCEIVER	DEFECTIVE		4/29/94
HEEA	51610	206L3				064105430	COCKPIT		HEEA942170
	HIGH NOISE WHEN KEYING MIKE FOR FIRST 15 MINUTES OF OPERATION, THEN NORMAL. FOUND SOME DISPLAY SEGMENTS INOPERATIVE. REPLACED DISPLAY DS901. REPAIRED AND ADJUSTED SQUELCH AND SIDE TONE. BENCH CHECK GOOD.								
2330	206LS	BELL				AUDIO PANEL	FAILED		4/22/98
HEEA	51070	206L3				066105552	COCKPIT		HEEA0014017
	PA CHANNEL INOPERATIVE AND DUAL SINGLE SWITCH LOOSE.								
2562	513EH	BELL			NARCO	ELT	FAILED		5/1/98
HEEA	45421	206L1				ELT910	COCKPIT		HEEA0014111
	ELT UNIT FOUND IN ON POSITION FOR UNKNOWN TIME.								

******* DENOTES SIGNIFICANT OCCURRENCE**

ATA OPER	REG. NO SERIAL NO	ACFT MAKE ACFT MODEL	ENG MAKE ENG MDL	PROP MAKE PROP MDL	COMP MFG COMP MDL	PART NAME PART NUMBER	PART COND PART LOC.	TT TSO	DIFF. DATE OPER CONT NO
2562	6610E	BELL			NARCO	ELT	DEFECTIVE		4/29/98
HEEA	51424	206L3				ELT10	COCKPIT		HEEA0014086
	ELT RESET BUTTON WILL NOT SPRING BACK.								
3421	11027	BELL				ROTOR ASSY	DEFECTIVE		5/1/98
HEEA	45411	206L1				2360041905	INDICATOR		HEEA0014110
	ROTOR ASSY BEARINGS ARE BAD.								
3422	4180F	BELL				GYRO	DEFECTIVE		2/26/94
HEEA	51469	206L3				102005403	COCKPIT		HEEA942218
	HORIZ GYRO SLOW TO ERECT, REPORTED PRECESSING.								
3423	22425	BELL				COMPASS	LEAKING		4/22/98
HEEA	45743	206L1				C2300DL4B	COCKPIT		HEEA0014029
	COMPASS LEAKING.								
3444	8594X	BELL				INDICATOR	STICKS		4/25/94
HEEA	51531	206L3			KI250	066305401	COCKPIT		HEEA942180
	NEEDLE STICKS AT 500 FEET. LOOSE WASHERS INSIDE OF UNIT. TROUBLESHOT AND REMOVED LOOSE WASHERS FROM INSIDE OF UNIT AND REPLACED BEZEL ASSEMBLY. BENCH CHECK GOOD.								
3452	3181J	BELL				TRANSPONDER	KNOB BROKEN		5/14/94
HEEA	3771	206B			KT76	066106200	COCKPIT		HEEA942215
	BROKEN KNOB. REPLACED KNOB AND ALSO REPLACED DETERIORATED RESISTOR R477. REPAIRED PROBLEM.								
3452	3181Y	BELL				TRANSPONDER	FAILED		4/29/98
HEEA	3772	206B3			KT76	066106200	COCKPIT		HEEA0014057
	NUMBERS ON THE DIAL, DO NOT MATCH DECODER NUMBER TRANSMITTING. FOUND UNIT SHOWING FALSE PULSES. CLEANED WAFER SWITCHES. REPAIRED. ADJUSTED PULSE WIDTH AND FREQUENCY TO SPECS. BENCH CHECK GOOD.								
3452	2759U	BELL				TRANSPONDER	INOP		4/27/94
HEEA	45267	206L1			KT76	066106200	COCKPIT		HEEA942176
	ATC NOT RECEIVING. TROUBLESHOT AND REPLACED V101 OSCILLATOR, R477 RESISTOR AND FACEPLATE. REPAIRED. PERFORMED MOD 6 BY INSTALLING Q415 SPACER. REPAIRED.								
3452	2250U	BELL				TRANSPONDER	INTERMITTENT		3/21/94
HEEA	45754	206L1			KT76	066106200	COCKPIT		HEEA942175
	INTERMITTENT OPERATION. TROUBLESHOT AND REPLACED CAVITY OSCILLATOR V101, DIODE CR202, CAPACITORS, C202 AND C204, TRANSISTOR Q201, FUSE F401, MIXER DIODE AND COAX FOR MIXER DIODE AND DETERIORATED RESISTOR R477. REPAIRED PROBLEM.								
3452	21497	BELL				TRANSPONDER	FAILED		4/29/98
HEEA	51518	206L3			KT76	066106200	COCKPIT		HEEA0014053
	MODE "C" REPORTED INOPERATIVE BY ATC. PERFORMED PRELIMINARY INSPECTION. FOUND PULSE WIDTH TO BE OUT OF SPECS AND REPLY LIGHT TO CONSTANTLY BLINK.								
3457	9907K	BELL				GPS	FAILED	1422	4/16/98
LS1R	2040	206B			GPS150	0110005400	COCKPIT		98ZZZX1685
	GPS WILL NOT PICK UP SATELLITE UNIT SENT TO MANUFACTURER FOR REPAIR. CONTROL NR 984-9.								
3457		BELL				GPS	DEFECTIVE		4/29/98
HEEA		206L1			GPS 150	0110005400	COCKPIT		HEEA0014055
	GPS NO LONGER NEEDED ON AIRCRAFT. BENCH CHECK REQUIRED. PERFORMED PRELIMINARY INSPECTION. FOUND DIRECT TO BUTTON UNREADABLE.								

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3457	22425	BELL				GPS	FAILED		4/29/98
HEEA	45743	206L1			GPS 150	0110005400	COCKPIT		HEEA0014056
	GPS TAKES 30 MINUTES TO COME ON. PERFORMED PRELIMINARY INSPECTION. FOUND UNIT TO HAVE UNREADABLE ENTRY AND CRSR BUTTONS.								
3455	5736J	BELL				RECEIVER	FAILED		4/29/98
HEEA	31140	212				066104701	COCKPIT ADF		HEEA0014058
	ADF RECEIVER WEAK RECEIVE AND NOT POINTING CORRECTLY IN ADF MODE. INSPECTED AND FOUND ADF MODE SIGNAL WEAK AND NOT POINTING. TRIED ALIGNING RECEIVER. NO HELP.								
3457	2FOR	BELL				GPS	DEFECTIVE		4/23/94
HEEA	30888	212			SKYNAV5000	0845000000	COCKPIT		HEEA942185
	INTERMITTENTLY DISPLAYS CHARACTERS.								
2210	23023	BELL				TARSYN	FAILED		4/29/98
HEEA	33080	412				2593996333	AUTO FLIGHT		HEEA0014071
	FAILS TEST 6.2 ON SST. COMPASS CARD WILL NOT MOVE.								
2210	2148K	BELL				COMPUTER	FAILED		4/20/98
HEEA	36001	412				7000298901	AFCS		HEEA0013988
	AFCS COMPUTER FAILED. ROLL ACTUATOR HUNTS BOTH DIRECTIONS.								
2312	3893L	BELL				TRANSEIVER	DEFECTIVE		4/29/98
HEEA	33006	412				7001840913	COCKPIT DISPLAY		HEEA0014087
	50,250,400, AND 1200 LEDS WILL NOT LIGHT.								
2312	3893S	BELL				TRANSCEIVER	GARBLED		2/7/94
HEEA	33022	412			KTR905	064100900	COCKPIT		HEEA942169
	GARBLED. SENT TO ALLIED SIGNAL AVIONICS FOR INSPECTION AND REPAIR.								
2312	2258F	BELL				TRANSCEIVER	MALFUNCTION		4/29/98
HEEA	33073	412				7001840913	COCKPIT		HEEA0014079
	TRANSCEIVER POWER OUT FLUCTUATES WHEN VIBRATED.								
2312	23023	BELL				COMM CONTROL	DEFECTIVE		4/19/94
HEEA	33080	412				071121540	COCKPIT		HEEA942182
	DIGITS TOO DIM IN SUNLIGHT. REPLACED DISPLAY DS901 AND FRONT LENS ON FACEPLATE. ALSO REPLACED TRANSFER SWITCH S102 FOR INTERMITTENT TRANSFER OF FREQUENCY. REPAIRED PROBLEM.								
2312	141PH	BELL				TRANSCEIVER	MALFUNCTION		4/29/98
HEEA	33197	412				7001840913	COCKPIT		HEEA0014078
	TRANSCEIVER POWER OUT FLUCTUATES WHEN VIBRATED.								
2312	33008	BELL				COMM CONTROL	DEFECTIVE		4/26/94
HEEA	36004	412				071121540	COCKPIT		HEEA942183
	CANNOT CHANGE FREQUENCY ON SMALL KNOB. CLEANED KHZ SELECTOR SWITCH S104. ALSO FOUND INTERMITTENT TRANSFER SWITCH S102. REPLACED TRANSFER SWITCH S102. REPAIRED PROBLEM.								
2370	22608	BELL				CVR	FAILED		4/29/98
HEEA	33075	412				9806020023	COCKPIT		HEEA0014054
	CVR CAUSES THE "TEST" LIGHT TO STAY ILLUMINATED CONSTANTLY.								

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2370	2298Z	BELL				CVR	MALFUNCTION	3885	4/22/98
HEEA	33077	412				9806019001	COCKPIT		HEEA0014012
	CVR NEEDS EVALUATION.								
3120	108X	BELL				CLOCK	MALFUNCTION		4/22/98
HEEA	33115	412				212075514001	COCKPIT		HEEA0014031
	CLOCK LOSES TIMES.								
3414	7128R	BELL				INDICATOR	DEFECTIVE		4/20/98
HEEA	36007	412				412075009105	COCKPIT		HEEA0013986
	AIRSPEED IND EXCESSIVE CASE LEAKAGE AND READ OUT OF TOLERANCE.								
3416	293CA	BELL				ALTIMETER	ERROR		4/29/98
HEEA	33005	412				5035P2P44	COCKPIT ENCODE		HEEA0014083
	ENCODING ALT INDICATES 200 FEET LOW OUT OF TOLERANCE.								
3416	293CA	BELL				ALTIMETER	FAILED		4/29/98
HEEA	33005	412				5035P2P44	COCKPIT ENCODE		HEEA0014082
	ENCODER READS OUT OF TOLERANCE AT 10,000 FEET AND ABOVE.								
3416	2261D	BELL				ALTIMETER	DEFECTIVE		3/3/94
HEEA	33076	412				1003511326	COCKPIT		HEEA942217
	ALTIMETER HAS EXCESSIVE FRICTION ERROR.								
3421	3893N	BELL				INDICATOR	FAILED		5/1/98
HEEA	33010	412				1113034	FLT DIRECTOR		HEEA0014108
	FD FLAG NOT RETRACTING WHEN POWER IS ON.								
3421	108X	BELL				INDICATOR	FAILED		5/1/98
HEEA	33115	412				1113034	COCKPIT		HEEA0014109
	ATTITUDE INDICATOR WILL NOT OPERATE IN PITCH.								
3425	2298Z	BELL				INDICATOR	ERRATIC		4/16/94
HEEA	33077	412				1113025	COCKPIT HSI		HEEA942223
	CROSS TRACK DEVIATION POINTER HAS A ERRATIC OPERATION.								
3425	22347	BELL				INDICATOR	STICKS		4/29/98
HEEA	36005	412				1113025	COCKPIT		HEEA0014081
	HSI INDICATOR HEADING SET POINTER STICKS INTERMITTENTLY.								
3444	108X	BELL				INDICATOR	STICKS		4/29/98
HEEA	33115	412				7000839904	RADAR ALT		HEEA0014080
	RADAR ALT NEEDLE STICKS AT 210 FEET.								
2312	4391S	BOLKMS				TRANSCEIVER	DEFECTIVE		5/9/94
HEEA	S787	BO105S			KY196	064101900	COCKPIT		HEEA942211
	TRANSCEIVER WARMS UP AND THEN SHUTS OFF. COULD NOT DUPLICATE PROBLEM. ADJUSTED MOD, SIDETONE AND SQUELCH AND FREQUENCY. BENCH CHECK GOOD.								

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2562	54191	BOLKMS			NARCO	ELT	FAILED		4/22/98
HEEA	S804	BO105S				ELT10	BATTERY		HEEA0014026
	BATTERY INOPERATIVE. TIME SINCE REPAIR 0:00.								
3416	54191	BOLKMS			ACK	ENCODER	FLUCTUATES		4/4/94
HEEA	S804	BO105S				A30	COCKPIT		HEEA942136
	ENCODER OUTPUT FLUCTUATES 200 FEET CONTINOUSLY.								
3422	205BB	BOLKMS				GYRO	DEFECTIVE		3/3/94
HEEA	S58	BO105S			KG102A	060001500	COCKPIT		HEEA942209
	GYRO WILL NOT BECOME VALID AND HEADING IS UNSTABLE. TIME SINCE REPAIR 175:00.								
3422	4391S	BOLKMS				GYRO	TRIPS BREAKER		5/2/94
HEEA	S787	BO105S			KG102A	060001500	COCKPIT		HEEA942210
	GYRO POPS CIRCUIT BREAKER. TIME SINCE REPAIR 0:00.								
3452	5368F	BOLKMS				TRANSPONDER	INOP		4/18/94
HEEA	S718	BO105CB*			KT76	066106200	COCKPIT		HEEA942177
	TOWER REPORTED TRANSPONDER WAS NOT WORKING. TROUBLESHOT AND REPLACED V101 (TUBE), R441 (RESISTOR), R429 (RESISTOR). ADJUSTED THE RECEIVER AND TRANSMITTER. BENCH CHECK GOOD.								
3452	8197X	BOLKMS				TRANSPONDER	INOP		4/11/94
HEEA	S808	BO105S			KT76	066106200	COCKPIT		HEEA942174
	TRANSCEIVER INOPERATIVE. TROUBLESHOT AND ADJUSTED LOW POWER OUT. ALSO REPLACED DETERIORATED RESISTOR R477. REPAIRED PROBLEM. BENCH CHECK GOOD.								
3452	7136J	BOLKMS				TRANSPONDER	BROKEN		5/16/94
HEEA	S830	BO105S				066106200	COCKPIT		HEEA942213
	TRANSCEIVER FACE COVER BROKEN. REPLACED FACEPLATE ASSY, DETERIORATED RESISTOR R477 AND PHOTOCELL V301. ADJUSTED SIDE LOBE SUPRESSION. REPAIRED PROBLEM.								
2210	911NC	BOLKMS				SPAS COMPUTER	DEFECTIVE		1/22/94
HEEA	7026	BK117A3				11788292	COCKPIT		HEEA942227
	SPAS LIGHT ILLUMINATES AS SOON AS SWITCH IS PUT INTO POSITION - SPAS OPERATES NORMALLY IN FLIGHT.								
2312	911TL	BOLKMS				TRANSCEIVER	DEFECTIVE		5/4/94
HEEA	7198	BK117B1				064105430	COCKPIT		HEEA942212
	TRANSCEIVER NO DISPLAY.								
3420	134AE	BOLKMS				INDICATOR	DEFECTIVE		4/22/98
HEEA	7237	BK117B2				4021541671	COCKPIT		HEEA0014032
	ARTIFICIAL HORIZ INDICATOR INTERNAL LIGHTS SHORTED.								
3457	911TL	BOLKMS				GPS	FAILED		4/20/98
HEEA	7198	BK117B1			SKYNAV 5000	0845000000	COCKPIT		HEEA0013985
	INTERMITTENTLY LOSING POWER AND SHUTTING DOWN. NOT AIRCRAFT WIRING. DOES SAME WHEN POWERED UP ON BENCH. FOUND UNIT TO LOCK UP AND CHANGES MODES WITHOUT PRESSING ANY KEYS.								
6113	7353S	CESSNA				BULKHEAD	CRACKED	2302	11/7/97
	18265144	182P				075263717	SPINNER		97ZZZX5126
	FOUND SPINNER BULKHEAD CRACKED AT ATTACHMENT BOLTS. SUBMITTER STATED THIRD BULKHEAD FOUND CRACKED THIS YEAR. OTHER AIRCRAFT RECORDS SHOW PART TIMES AT 1,560 - 1,890 HOURS.								

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3414	31217	SKRSKY				INDICATOR	FAILED		5/1/98
HEEA	760229	S76A				8502CS20LW	COCKPIT		HEEA0014102
	AIRSPEED INDICATOR INDICATES HIGH OUT OF TOLERANCE.								
3421	1547D	SKRSKY				INDICATOR	PRECESSES		5/1/98
HEEA	760077	S76A				125780	COCKPIT ADI		HEEA0014107
	ADI INDICATOR PRECESSING IN FLIGHT.								
3425	1545K	SKRSKY				INDICATOR	INTERMITTENTLY		4/15/94
HEEA	760047	S76A				1113025	COCKPIT HSI		HEEA942225
	NAV FLAG AND DEVIATION BAR WORKS INTERMITTENTLY.								
3425	1546K	SKRSKY				INDICATOR	NEEDLE STICKS		4/23/94
HEEA	760082	S76A				1113025	COCKPIT HSI		HEEA942224
	HEADING NEEDLE STICKS. .								
3425	5435V	SKRSKY				INDICATOR	DEFECTIVE		3/23/94
HEEA	760158	S76A				1113025	COCKPIT HSI		HEEA942226
	INDICATOR CAUSES SECOND HSI TO BE 180 DEGREES OFF WHEN THIS UNIT IS IN THE COMMAND MODE. TIME SINCE REPAIR 0:00.								
3454	3122G	SKRSKY				RECEIVER	MALFUNCTION		5/2/94
HEEA	760232	S76A				066400700	COCKPIT		HEEA942181
	#2 NAV RADIO WOULD NOT TEST ON VOR FREQUENCY. INSPECTED FOR CORROSION, ADJUSTED VOR TRACKING, GLIDESCOPE CENTERING, GLIDESCOPE SENSE AND GLIDESCOPE SUPER FLAG. BENCH CHECK GOOD.								
3416	350BZ	SNIAS				ALTIMETER	ERROR	349	4/21/94
HEEA	2653	AS350B				5934P1	COCKPIT		HEEA942155
	ALTIMETER READS ERRONEOUSLY.								

(End of DOMESTIC SERVICE DIFFICULTY REPORT SUMMARY - COMPONENTS)

DOMESTIC SERVICE DIFFICULTY REPORT SUMMARY - PROPELLERS

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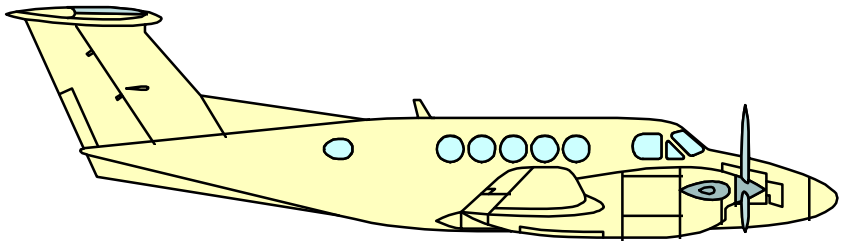
(There was no data for this report.)

(End of DOMESTIC SERVICE DIFFICULTY REPORT SUMMARY - PROPELLERS)

INTERNATIONAL

SERVICE DIFFICULTY REPORT



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2421		AYRES	PWA		SKYTRONICS	ROTOR	SHORTED	148	6/28/93
		S2RNORMAL	R1340AN1		765ST	761	ALTERNATOR		CA930709211
	(CAN) ALTERNATOR VIBRATED APART. THRU BOLTS AND END HOUSING SHOWED SIGNS OF BEING LOOSE AND WORN. AS ALL PARTS WERE LOOSE, ROTOR STARTED BANGING INTO STATOR ASSY. CUSTOMER TOLD SUBMITTER THAT THIS WAS THE THIRD OCCURRENCE AT APPROXIMATELY 100 TO 150 HOURS								
5610		BEECH	PWA		PPG	WINDSHIELD	CRACKED	40	11/29/93
		A100	PT6A28		5042006931	BA2918	LH		CA931208201
	(CAN) IN CRUISE WITH W/S HEAT ON WINDSHIELD CRACKED. PART TC: 82.								
5753		BEECH	PWA			SKIN	DEFECTIVE		9/25/97
		100BEECH	PT6A28			5016000389	FLAP		CA971007009
	(CAN) AFTER RECEIVING THIRD SKIN FROM BEECH, ITEM STILL DID NOT CONFORM TO SPECS. BEECH CONTACTED INFORMING THEM ITEM APPEARED TO BE INCORRECTLY STAMPED. IF THE SKIN IS INSTALLED AS RECEIVED WOULD RESULT IN A TWISTED FLAP. BEECH IS CURRENTLY CONDUCTING CONFORMITY CHECK ON REMAINING INVENTORY TO IDENTIFY SOURCE OF THE PROBLEM AND CORRECT IT. AIRCRAFT TT: 15,891 HOURS.								
2720		BEECH	PWA		FISHER	REGULATOR	FAILED	1958	7/12/93
		200BEECH	PT6A41			115241791	RUDDER BOOST		CA930715601
	(CAN) ON SINGLE ENGINE APPROACH WITH STBD. ENGINE AT FLIGHT IDLE AND RUDDER BOOST "ON", THE RUDDER BOOST APPLIED FULL LEFT RUDDER. RUDDER BOOST TURNED "OFF", BUT RUDDER STAYED LOCKED IN FULL LEFT POSITION. BOTH PILOTS NEEDED TO HOLD RUDDER IN NEUTRAL POSITION. AT END OF LANDING ROLL, RUDDER RETURNED TO NORMAL. REGULATOR AND 2 RELIEF VALVES REPLACED.								
5740		BEECH	CONT			DRAIN	PLUGGED	3584	6/23/93
		F33A	IO520B				LT/RT WING FTNG		CA930709206
	(CAN) LT AND RT WING UPPER ATTACHMENT FITTING DRAIN HOLES PLUGGED CAUSING ACCUMULATION OF WATER WHICH EGRESSED INTO WING ATTACHMENT BOLT BORES.								
3233		BEECH	CONT			MOTOR	OVERHEATED	29	12/1/93
		95B55B	IO470L		9581001719		LDG GEAR		CA931207019
	(CAN) LANDING GEAR SELECTED DOWN, U/C ONLY EXTENDED PART WAY AND AN ELECTRIC SMELL WAS NOTICEABLE. ELECTRIC MOTOR FOUND TURNING SLOWLY AND OVERHEATING ON BENCH CHECK.								
7602		BEECH	CONT			CABLE	BROKEN		11/4/97
		95B55	IO470L			5038901021	MIXTURE	10	CA971121003
	(CAN) SHORTLY AFTER TAKEOFF, THE AIRCRAFT CAPTAIN REPORTED THE RT MIXTURE WAS NOT RESPONDING NORMALLY. AIRCRAFT RETURNED TO DEPARTURE POINT. MAINTENANCE INVESTIGATION FOUND THE MIXTURE CABLE HAD BROKEN AT THE ROD END TO ENGINE. THIS IS THE THIRD FAILURE OF THIS KIND.								
7602		BEECH	CONT			CABLE	BROKE		10/29/97
		95B55	IO470L			5038901021	MIXTURE	52	CA971121002
	(CAN) RT MIXTURE WAS REPORTED AS STICKING, NIL RESPONSE. MAINTENANCE INVESTIGATION FOUND THE MIXTURE CABLE HAD BROKEN AT THE ROD END TO THE ENGINE. THIS IS THE SECOND TYPE OF OCCURRENCE.								
7602		BEECH	CONT			CABLE	BROKE		10/8/97
		95B55	IO470L			5038901021	MIXTURE	1363	CA971121001
	(CAN) THE RT ENGINE FUEL MIXTURE CABLE FAILED ON APPROACH. THIS ACTION RESULTED IN THE RT ENGINE MIXTURE ROLLING BACK TO IDLE CUT-OFF STOPPING THE ENGINE. MAINTENANCE INVESTIGATION REVEALED THE MIXTURE CABLE FAILED AT THE SWAGE ATTACHMENT END TO THE ROD AT THE ENGINE. CABLE REPLACED.								
2742		BEECH	PWA			ACTUATOR	INOPERATIVE		10/15/97
		99	PT6A28			11538011119	HORZ STAB	3941	CA971113063
	(CAN) HORIZONTAL STABILIZER TRIM ACTUATOR FAILED 1.7 HRS AFTER INSTALLATION. ACTUATOR WAS PREVIOUSLY SENT IN FOR REPAIR OF MAIN TRIM MOTOR AND FAILED IN THE MAIN TRIM MOTOR SIDE AGAIN. INVESTIGATION FOR CAUSE OF THE FAILURE IS CURRENTLY IN PROGRESS. PART TC: 7,318.								

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2742		BEECH	PWA		TALLEY	ARMATURE	OPEN	398	7/6/93
		B99	PT6A28		1136T10023	8F353	PITCH TRIM ACT		CA930722202
	(CAN) ARMATURE LEADS "FLYING" AWAY FROM COMMUTATOR, EVEN THOUGH LEADS ARE STRAPPED DOWN. THUS, INTERMITTENT OPERATION OF PITCH TRIM ACTUATOR.								
2720		CESSNA				CABLE	FRAYED		10/8/93
		150L				41749	RUDDER LT		CA931018601
	(CAN) RUDDER CONTROL CABLES FOUND CORRODED AND FRAYED. RT CABLE P/N 040010750. RT PROBLEM ABOUT 6 INCHES FROM RUDDER END AT PULLEY. LT CABLE PROBLEM AT BOTH ENDS OF CABLE.								
5511		CESSNA				RIB	CRACKED	9722	6/30/93
		152				53215	HORIZONTAL STAB		CA930719401
	(CAN) CRACKING SOUND NOTED ON HORIZONTAL STAB DURING INSPECTION.CRACK FOUND IN LH INBD STAB NOSE RIB & LEADING EDGE WAS LOOSE TO MAIN SKIN.								
2435		CESSNA	CONT			SHAFTGEAR	CRACKED	776	6/17/93
		180J	O470K			539568	STARTER ADAPTER		CA930712101
	(CAN) HARD STARTING SNAG INVESTIGATION. ON REMOVAL OF STARTER ADAPTER, ONE OF THE OUTPUT GEAR TEETH WAS MISSING. THE MISSING TOOTH WAS FOUND IN THE ENGINE OIL SUMP.								
7120		CESSNA				MOUNT	CORRODED	3857	9/22/93
		182J				75161	ENGINE		CA931013127
	(CAN) PITTING NOTICED ON ENGINE MOUNT. REMOVAL OF HEAT DEFLECTOR SHROUDS REVEALED SEVERE CORROSION OF ENGINE MOUNT TUBING NEAR EXHAUST COLLECTOR. PITTING MORE THAN HALFWAY THROUGH TUBE WALL. AIRCRAFT PREVIOUSLY COMPLETED 100 HR INSP .6 HRS BEFORE AND DIFFICULTY WAS MISSED.								
7810		CESSNA	CONT			STACK ASSY	CORRODED	3857	9/22/93
		182J	O470R			7516131	EXHAUST		CA931013126
	(CAN) ENGINE REMOVED FOR MOUNT REPAIRS. EXHAUST SYSTEM REMOVED. BOTH LT AND RT COLLECTORS FOUND SEVERELY CORRODED AND BURNED. 100 HR INSP JUST COMPLETED .6 HRS PREVIOUSLY.								
2710		CESSNA				CABLE	CHAFED	3505	10/4/93
		A185F				5115113	AILERON STA 72.6		CA931018604
	(CAN) CARRY THROUGH AILERON CONTROL CABLE FOUND BADLY CHAFED AND WITH BROKEN STRANDS ON BOTH LEFT AND RIGHT WINGS AGAINST RUB STRIP P/N 0523233-3.								
2750		CESSNA				BRACKET	BROKEN	9076	10/4/93
		A185E				512128	FLAPS STA 65.33		CA931018301
	(CAN) FLAP SYSTEM STIFF. LEFT FLAP PULLEY BRACKET ON LOWER BULKHEAD AT STA 65.33 BROKEN.								
2750		CESSNA				LEVER	CRACKED	10358	10/12/93
		A185E				511665	FLAP		CA931103501
	(CAN) FLAP LEVER ASSY FOUND CRACKED AND BROKEN IN AREA OF LATCH. LATCH TO RATCHET MECHANISM INOPERATIVE CAUSING FLAPS TO RETRACT SUDDENLY. FLAP HANDLE POSITION HELD MANUALLY BY PILOT ON DESCENT. POSSIBLY CAUSED BY AGE OR EXCESS PRESSURE WHEN FLAPS IN FULL RETRACT. FLAP HANDLE MAY OFTEN BE STEPPED ON AS RT PASSENGER MUST STEP OVER HANDLE TO LT SEAT TO EXIT AIRCRAFT.								
7921		CESSNA	CONT		HARRISON	OIL COOLER	CRACKED	50	6/30/93
		U206	IO520F			8526732	DIAG BRACE		CA930715603
	(CAN) OIL COOLER DIAGONAL BRACE FOUND CRACKED MID-WAY BETWEEN ATTACHMENT POINTS.								
7921		CESSNA	CONT	MCAULY	HARRISON	OIL COOLER	LEAKING		7/1/93
		U206	IO520F			8526732	ENG OIL		CA930715604
	(CAN) THIS OIL COOLER SUPPLIED BY WARRANTY. AFTER INSTALLATION AND SHORT TEST FLIGHT, IT DEVELOPED A SERIOUS LEAK.								

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3230		CESSNA	CONT			LANDING GEAR	FOLDED	3806	12/23/97
		210L	IO520L				LT GEAR		CA980113006
	(CAN) AFTER LANDING,THE LT GEAR SLOWLY FOLDED BACK INTO THE RETRACT POSITION. AIRCRAFT SETTLED TO GROUND ON LT STABILIZER CAUSING DAMAGE TO LT STABILIZER AND ELEVATOR. UNDER INVESTIGATION.								
3213		CESSNA	CONT			TRUSS WELD	CRACKED	3917	7/16/93
		310I	IO470U			841236	MLG RT/LT		CA930727202
	(CAN) UPPER AFT WELD ON BOTH RIGHT AND LEFT MLG SHOCK STRUT TRUSS WELDED ASSEMBLIES FOUND CRACKED. THE LAST CHECK IN THIS AREA HAD BEEN CARRIED OUT JUST 70 HRS PREVIOUS WITH NO CRACKS FOUND. LT TRUSS P/N 084120037.								
5260		CESSNA	CONT	MCAULY		STEP SUPPORT	BROKEN		10/19/93
		310R	IO520MB	3AF32C87		811931	CABIN		CA931102301
	(CAN) WITH FLOOR REMOVED, THE STEP SUPPORT BRACKET AND SECOND STEP P/N 0811944-1 WERE FOUND CRACKED. POSSIBLY CAUSED BY A LARGE PASSENGER. AIRCRAFT TT: 5,542 HOURS.								
5711		CESSNA	CONT			DOUBLER	CRACKED		6/22/93
		T337B	TSIO360A		1422500201	14225141	WING FRONT SPAR		CA930714101
	(CAN) WING SPAR INSPECTED IN ACCORDANCE WITH FAA AD 78-09-05. .25 INCH CRACK FOUND IN RADIUS OF DOUBLER OF FRONT LT SPAR WING ATTACH POINT.								
3246		CESSNA			GOODYEAR	WHEEL HALF	CRACKED		10/17/93
		441			5003064	5377	MLG		CA931102102
	(CAN) WHEEL HALF CRACKED BETWEEN BOLT HOLE AND INSIDE SURFACE OF WHEEL ALLOWING AIR TO ESCAPE FROM TUBELESS TIRE. WHEEL HAD BEEN ZYGLOED PREVIOUS TO INSTALLATION AND CRACK WAS NOT DETECTED. WEIGHT ON WHEEL CAUSED CRACK TO OPEN.								
3040		CESSNA	PWA			BLOWER	SEIZED	2386	6/29/93
		550	JT15D4			5773	COCKPIT DEFOG		CA930715110
	(CAN) ACRID SMOKE SMELL NOTED BY CREW AND PASSENGER. OXYGEN MASKS USED. NO FIRE NOTED. COCKPIT DEFOG BLOWER FOUND TO BE CAUSE. BLOWER HAD BEEN SELECTED TO HIGH AND BEARING PROBABLY FAILED CAUSING BLOWER TO SEIZE.								
5740		DHAV	PWA			WING STRUT	CORROSION		6/2/93
		DHC2MK1	R985AN14B			C2W113	LOWER FITTING		CA930711401
	(CAN) LIGHT TO MODERATE STRESS CORROSION AND FRETTING AROUND BOLT HOLES.								
5743		DHAV				STRUT	CORROSION	1887	11/1/93
		DHC3				VALC315	LT		CA931103104
	(CAN) CORROSION BETWEEN SKINS OF STRUT AND RIVETED FITTINGS AND BETWEEN RIVETED FITTINGS AND LUG FITTINGS STRUT TO FUSELAGE. STRUT WAS A 20,000 HR STRUT. AIRCRAFT TT: 21,848 HOURS.								
3250		DHAV	PWA			CABLE	FRAYED		6/28/93
		DHC6300	PT6A27			CC6CF12425	NLG STEERING		CA930719405
	(CAN) NLG STEERING CABLE HAD THREE FRAYED AREAS AT PULLEY POINTS.								
5311		DHAV	PWA			SIDE FRAME	CORRODED		7/6/93
		DHC6100	PT6A20			C6FSM2528511	LT SIDE		CA930715103
	(CAN) LT AFT WING PICK-UP AFT END CORRODED ON FUSELAGE. FITTING AND LUG HAS CRACKS. ON REMOVAL, BUSHING HAD NOT BEEN INSTALLED. ACFT TT: 23,236.								
5310		NOORDN				FABRIC	TORN	10000	6/20/97
		UC64A					FUSELAGE CEILING		CA970709011
	(CAN) PILOT NOTED A SLIGHT BUFFETING FOLLOWED BY A SLIGHT ROLL TO THE RIGHT. TEARING AND OIL CANNING SOUND WAS HEARD. ANOTHER AIRCRAFT NOTED THAT THE FABRIC ON UPPER FUSELAGE WAS TORN. REPAIRS CARRIED OUT. AIRCRAFT TT: 9,920 HOURS.								

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7820		PARTEN	PWA		PARTEN	MUFFLER	CRACKED	188	9/27/93
		P68C	PT6A41			6133134	RT		CA931018606
	(CAN) MUFFLER FOUND CRACKED AND BROKEN AROUND RT OUTBOARD FLANGE.								
2710		PIPER	LYC			CABLE	CHAFED	6731	12/22/97
		PA23250	IO540C4B5			1430004	AILERON		CA980113015
	(CAN) AILERON BALANCE CABLE CHAFING ON FLOOR SKIN AND HYDRAULIC LINE CABLE REPLACED, HYDRAULIC LINE RECLAMPED AND FLOOR SKIN MOVED.								
2701		PIPER				CONTROL WHEEL	BROKEN	7609	6/24/93
		PA28140				6855811	PILOTS		CA930713607
	(CAN) ON ROLL-OUT AFTER LANDING, PILOT'S CONTROL WHEEL BROKE IN TWO PIECES. BREAK EXTENDED FROM RETAINING PIN HOLE VERTICALLY. AD 69-22-02 HAD BEEN DONE 63 HOURS BEFORE THIS FAILURE.								
5730		PIPER				PAN	CRACKED	5019	6/21/93
		PA28161			6206102	6262	WING WALK		CA930711404
	(CAN) CORRUGATED PAN CRACKED ALONG EDGES OF CORRUGATIONS UNDERNEATH WING WALK AREA. FIVE OTHER AC ALSO AFFECTED. FEEDBACK 92-01 REFERS.								
5730		PIPER	LYC			PAN	CRACKED	5019	6/21/93
		PA28161	O320D3G		6206104	6263	WING WALK AREA		CA930721701
	(CAN) CORRUGATED PAN CRACKED ALONG EDGES OF CORRUGATIONS UNDERNEATH WING WALK AREA. FIVE OTHER AIRCRAFT ALSO AFFECTED. FEEDBACK 92-01 REFERS. ACFT TT: 5,969.								
8011		PIPER	LYC		PRESTOLITE	STARTER	FAILED	449	10/5/93
		PA28236	O540J3A5			M24222R	ARMATURE	71	CA931015201
	(CAN) 71 HOURS AFTER STARTER REPAIR, STARTER DRAGGING. ALL FRONT AND REAR BOLTS OF ARMATURE HOUSING LOOSE. ARMATURE DRAGGED ON WINDINGS. SUSPECT POOR ASSEMBLY.								
3233		PIPER				NUT	CRACKED	4323	6/30/93
		PA31			21151	477676	LT MLG ACTUATOR		CA930713602
	(CAN) LEAK AT INBOARD FITTING OF LT MLG ACTUATOR PN REMOVAL, FITTING LOCKNUT FELL APART CORROSION EVIDENT.								
5280		PIPER				HINGE	CRACKED	8915	7/2/93
		PA31350				466522	RT GEAR DOOR		CA930712301
	(CAN) CRACK FOUND ON RT GEAR DOOR FORWARD HINGE IN THE AREA SPECIFIED IN PIPER SB 682. HINGE REPLACED.								
5520		PIPER				ELEVATOR	CRACKED	11609	12/10/93
		PA31T				55162XS	TOP INBD HINGE		CA931217001
	(CAN) LEFT HAND ELEVATOR UPPER SKIN CRACKED .50 INCHES AFT OF INBOARD HINGE (STA BL 48.0). SPAR ALSO CRACKING UNDER HINGE P/N 4495502. SB 897A REFERS.								
3030		PIPER	CONT			PITOT HEAD	MALFUNCTION	5236	11/19/97
		PA34220T	TSIO360KB		9639206	9639206	DE ICE		CA971128002
	(CAN) PITOT HEAD FREEZES UP IN-FLIGHT RESULTING IN TOTAL LOSS OF AIRSPEED. NEW ELEMENTS INSTALLED AND SAME RESULTS. NOT SUFFICIENT TO MELT ICE IN-FLIGHT.								

(End of INTERNATIONAL SERVICE DIFFICULTY REPORT SUMMARY - AIRCRAFT)

ATA OPER	REG. NO SERIAL NO	ACFT MAKE ACFT MODEL	ENG MAKE ENG MDL	PROP MAKE PROP MDL	COMP MFG COMP MDL	PART NAME PART NUMBER	PART COND PART LOC.	TT TSO	DIFF. DATE OPER CONT NO
6310		AEROSP				BEARING	DAMAGED	1	5/15/93
		SA315B			31606330010	31656329223	CLUTCH		CA930722205
	(CAN) CLUTCH VIBRATION.								
7230		AEROSP	TMECA		TMECA	COMPRESSOR	DAMAGED	32	6/24/93
		SA315B	ARTOUSTE3B		IIIB1	1561	BLADE L/E		CA930722206
	(CAN) BLADE LEADING EDGE OF FIRST STAGE COMPRESSOR DAMAGED DUE TO FOD.								
6420		BELL				CROSSHEAD	DEFECTIVE		8/16/97
		204B				204011711001	T/R		CA970820003
	(CAN) NEW CROSSHEAD HAD PAINT MISSING ON ONE INBOARD TANG. A SMALL RIVET WAS FOUND INSTALLED IN THE CROSSHEAD.								
6520		BELL	LYC			GEARBOX	FAILED	4155	7/2/93
		204B	T5311B		20404000337	244337	42 DEG GR BOX	1654	CA930720301
	(CAN) 42 DEGREES GEARBOX FAILED IN HOVER.								
6230		BELL				LINK LEVER SYS	WORN		9/17/93
		206L				2613353	ROTOR SYSTEM		CA931018610
	(CAN) BEARINGS P/N 206-010-338-001 AND SPACERS P/N 206-010-337-001 FOUND WORN BEYOND LIMITS.								
6330		BELL				STOP MOUNT ASSY	LOOSE		9/17/93
		206L				26336421	MAIN TRANSMISION		CA931018609
	(CAN) LOOSE STOP MOUNTS CAUSED BY LOSS OF TORQUE ON NAS-1291-7 NUTS.								
7170		BELL	ALLSN			BELLOWS	TORN		9/17/93
		206L	250C20R2			118B261	ENG DRAIN		CA931019603
	(CAN) RUBBER BELLOWS SWOLLEN AND TORN.								
7230		BELL	ALLSN			SEAL	LEAKING	5218	2/18/97
		206B	250C20		6853337		INLET	1453	CA970311022
	(CAN) NR 1 SEAL LEAKING. PART TC: 11,543.								
7230		BELL	ALLSN		ALLSN	ROTOR	PUNCTURED	6672	10/4/93
		206B	250C20			6853337	ENG COMPRESSOR	3216	CA931019202
	(CAN) HOLE FOUND IN COMPRESSOR ROTOR ASSEMBLY AT 1750 HOUR CASE HALF INSPECTION. PART TC: 9,372.								
7712		BELL				GAUGE	ERROR		9/19/93
		206L				26751853	TORQUE		CA931019601
	(CAN) TORQUE GAUGE READS 3 PERCENT LOW.								
7722		BELL				GAUGE	ERROR		9/19/93
		206L				12444412	ENG TOT		CA931019602
	(CAN)TOT GAUGE READS 15 DEGREES CELSIUS HIGH.								
7200		BELL	PWA			ENGINE	FAILED		8/19/93
		212	PT6T3				NR 1		CA931013129
	(CAN) NR 1 ENGINE HAD LOUD BANG ON TAKEOFF. AIRCRAFT LANDED. ENGINE SENT TO REPAIR AND OVERHAUL. REPORT TO FOLLOW.								

ATA OPER	REG. NO SERIAL NO	ACFT MAKE ACFT MODEL	ENG MAKE ENG MDL	PROP MAKE PROP MDL	COMP MFG COMP MDL	PART NAME PART NUMBER	PART COND PART LOC.	TT TSO	DIFF. DATE OPER CONT NO
7210		BELL	PWA			GEAR BOX	FAILED		9/19/93
		212	PT6T3				NR1		CA931013123
	(CAN) NR 1 GEARBOX FAILED. ENGINE SENT TO P&W FOR DAMAGE ASSESSMENT.								
7250		BELL	PWA			COMP TURBNE	BURNT	9081	4/15/93
		212	PT6T3		3016700	313411	ENGINE	2743	CA930715602
	(CAN) DURING FLIGHT, ENGINE FAILED TO PRODUCE POWER AND OVERTEMPED. INSPECTION REVEALED COMPRESSOR TURBINE WHEEL BURNT AND MATERIAL MISSING. PART TC: 1,879.								
7200		BOEING	GE			ENGINE	FAILED	2981	7/9/93
		1072	CT58*			GT58141A	NR 1		CA930722101
	(CAN) ENGINES WOULD NOT MATCH IN TOPPING. NR 1 ENGINE CHANGED.								
7320		BOEING	GE		GE	ACTUATOR	FAILURE	4596	8/1/93
		1072	CT581401			FYLC5557	NR 2 ENG	196	CA931013130
	(CAN) AFTER REFUELING, AIRCRAFT PILOT WAS UNABLE TO GET RESPONSE FROM NR 2 ENGINE. ENGINE SHUTDOWN MANUALLY.								
2550		BOLKMS	ALLSN			CARGO HOOK	INTERMITTENT	51	6/14/93
		BO105C	250C20B			14276	HOOK RELEASE		CA930713604
	(CAN) HOOK RELEASE INTERMITTENT. AIRCRAFT SYSTEMS CHECK OK.								
2550		BOLKMS	ALLSN			CARGO HOOK	SHORTED		6/30/93
		BO105C	250C20B			14276	GROUND WIRE		CA930715605
	(CAN) GROUND WIRE MD5EZON INSULATION MELTED. THIS CAUSED WIRE BUNDLE FROM GROUND LUG TO FIRST CONNECTOR 5MDA TO SHORT OUT. CIRCUIT BREAKER IMD RATED AT 10 AMP DID NOT TRIP.								
5302		BOLKMS	ALLSN		BOLKMS	SKIN	CRACKED	4834	9/15/93
		BO105C	250C20B		10530101	15325156	RT STA 5500		CA931102104
	(CAN) DURING DAILY INSPECTION A CRACK APPROXIMATELY 2.25 INCHES LONG WAS FOUND ON RT SIDE APPROXIMATELY 14 FEET AFT OF ATTACHMENT FLANGE. AIRCRAFT TT: 6,378 HOURS.								
5532		BOLKMS	ALLSN			VERTICAL FIN	CRACKED	4380	10/2/93
		BO105CBS	250C20B			15341	UPPER LEFT SIDE		CA931014207
	(CAN) CRACK FOUND ON LEFT SIDE OF VERTICAL FIN CRACK SEEMED TO PROPAGATE FROM RIVET HOLE UNDER FISH PLATE, P/N 105-30402-27.								
6320		BOLKMS				BEARING	PEELING	2171	6/16/93
		BO105CBS			4638001001	46383224	LT INPUT		CA930719404
	(CAN) BEARING ROLLERS HAVE EXCESSIVE PEELING. INPUT PINION GEAR 4638-302-002 HAS EXCESSIVE PEELING.								
7810		HILLER	LYC			EXHST MANIFOLD	CRACKED	1866	5/2/93
		UH12E	VO540C2A			769618	WELD JOINT		CA930715109
	(CAN) CRACK AT WELD JOINT OF EXHAUST MANIFOLD UNDER CARBURETOR HEAT SHROUD.								
8530		HUGHES	LYC			CYLINDER	FAILED	29	6/17/93
		269C	HIO360D1A			LW1947	ENGINE		CA930713601
	(CAN) CYLINDERS FAILED. ENGINE REPLACED.								
6210		HUGHES	ALLSN			BLADE	CRACKED	3211	11/1/93
		369D	250C20B			369D211516A	M/R	835	CA931103105
	(CAN) FOLLOWING FLIGHT AND GROUND TRACK AND BALANCE, A LARGE CRACK WAS FOUND ON THE BOTTOM SURFACE OF THE BLADE.								

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6320		HUGHES	ALLSN			CHIP DETECTOR	CRACKED		8/17/97
		369D	250C20B			B3148A	M/R XMSN		CA970904033
	(CAN) AREA UNDER 'O' RING OF MAIN TRANSMISSION CHIP DETECTOR HOUSING FOUND CRACKED. SUSPECT OVERTORQUING.								
6710		SKRSKY	ALLSN			PBA ACTUATOR	RESTRICTED		10/28/93
		S76A	250C30S			742218	FLT CONTROL		CA931103103
	(CAN) PILOT REPORTED HAVING A RESTRICTED MOVEMENT IN FORWARD CYCLE WHEN GOING THROUGH 80 KNOTS. HYDRAULIC POWER WAS APPLIED UPON RETURN TO BASE AND FREEDOM OF MOVEMENT INSPECTION PERFORMED. A SCREW HOLDING THE CLAMP WHICH HOLDS THE WIRING HARNESS ON THE ACTUATOR WAS FOUND CATCHING A FITTING ON THE FLIGHT CONTROL DECK.								
7320		SKRSKY	ALLSN			TUBE B NUT	LOOSE		10/22/93
		S76A	250C30S			6893073	NR 2 ENG		CA931103102
	(CAN) AIRCRAFT LOST POWER ON NR 2 ENGINE. ENGINE HAD INSTABILITY IN POWER RANGE, ALL PNEUMATIC LINES WERE CHECKED FOR LEAKAGE, AIR LEAK WAS FOUND AT "B" NUT OF P/N 6893073 TUBE.								
6720		SNIAS	TMECA			BEARING	CORRODED	2235	8/2/93
		AS350B	ARRIEL1A		350A33200403	612RSIMT33CA	T/R PITCH		CA931019501
	(CAN) TAIL ROTOR ASSY FELT ROUGH. INSPECTION REVEALED HEAVY CORROSION AND PRACTICALLY GREASELESS PITCH CONTROL PLATE BEARING AND OUTER RACE.								

(End of INTERNATIONAL SERVICE DIFFICULTY REPORT SUMMARY - HELICOPTERS)

ATA OPER	REG. NO SERIAL NO	ACFT MAKE ACFT MODEL	ENG MAKE ENG MDL	PROP MAKE PROP MDL	COMP MFG COMP MDL	PART NAME PART NUMBER	PART COND PART LOC.	TT TSO	DIFF. DATE OPER CONT NO
7230		AEROSP	TMECA		TMECA	COMPRESSOR	DAMAGED	32	6/24/93
		SA315B	ARTOUSTE3B		IIIB1	1561	BLADE L/E		CA930722206
	(CAN) BLADE LEADING EDGE OF FIRST STAGE COMPRESSOR DAMAGED DUE TO FOD.								
7320		BEECH	PWA			P3 AIR LINE	CRACKED		10/4/93
		200CBEECH	PT6A41			32779	NR 2 ENGINE		CA931013501
	(CAN) FOLLOWING NORMAL TAKEOFF WHILE CLIMBING OUT AT CLIMB POWER SETTINGS, THE NR 2 ENGINE DECELLERATED TO IDLE SPEED. THE FLIGHT CREW MADE PRECAUTIONARY LANDING WITHOUT MISHAP. MAINTENANCE INVESTIGATION DETERMINED THE CAUSE TO BE A CRACKED P3 AIR LINE THAT SHUTDOWN THE GOVERNOR AND FCU CONTROL METERING SYSTEM. THE ENGINE WAS INSPECTED FOR EVIDENCE OF HIGH FREQUENCY OR ABNORMAL VIBRATIONS - NO EVIDENCE WAS FOUND. A PRECAUTIONARY INSPECTION OF ALL LIKE LINE ON LT AND RT ENGINES WAS CARRIED OUT.								
7322		BEECH	PWA		BENDIX	ELBOW	MISSING	1253	6/26/93
		C90	PT6A21		3207049B1	314214	FUEL CONTRL UNIT		CA930712103
	(CAN) ON APPLICATION OF POWER FROM LOW IDLE TO TAKEOFF SETTING IN A TOUCH AND GO SHORT FIELD APPROACH, AN ASYMMETRIC POWER SITUATION RESULTED CREATING A DEGRADATION OF AIRCRAFT DIRECTIONAL CONTROL. INVESTIGATION BY MAINTENANCE DETERMINED THE RESTRICTOR IN THE STAINLESS STEEL ELBOW P/N 3014214 CONNECTING THE P3 SENSE LINE TO THE FUEL CONTROL UNIT WAS FOUND NOT INSTALLED BY THE OVERHAUL FACILITY.								
7230		BELL	ALLSN			SEAL	LEAKING	5218	2/18/97
		206B	250C20		6853337		INLET	1453	CA970311022
	(CAN) NR 1 SEAL LEAKING. PART TC: 11,543.								
7230		BELL	ALLSN		ALLSN	ROTOR	PUNCTURED	6672	10/4/93
		206B	250C20			6853337	ENG COMPRESSOR	3216	CA931019202
	(CAN) HOLE FOUND IN COMPRESSOR ROTOR ASSEMBLY AT 1750 HOUR CASE HALF INSPECTION. PART TC: 9,372.								
7200		BELL	PWA			ENGINE	FAILED		8/19/93
		212	PT6T3				NR 1		CA931013129
	(CAN) NR 1 ENGINE HAD LOUD BANG ON TAKEOFF. AIRCRAFT LANDED. ENGINE SENT TO REPAIR AND OVERHAUL. REPORT TO FOLLOW.								
7210		BELL	PWA			GEAR BOX	FAILED		9/19/93
		212	PT6T3				NR1		CA931013123
	(CAN) NR 1 GEARBOX FAILED. ENGINE SENT TO P&W FOR DAMAGE ASSESSMENT.								
7250		BELL	PWA			COMP TURBNE	BURNT	9081	4/15/93
		212	PT6T3		3016700	313411	ENGINE	2743	CA930715602
	(CAN) DURING FLIGHT, ENGINE FAILED TO PRODUCE POWER AND OVERTEMPED. INSPECTION REVEALED COMPRESSOR TURBINE WHEEL BURNT AND MATERIAL MISSING. PART TC: 1,879.								
7421		CESSNA	LYC		SKYTRONICS	SPARK PLUG NUTS	DEFECTIVE	364	5/4/93
		172M	O320E2D				IGNITION HARNESS		CA930720303
	(CAN) DURING 50 HR INSPECTION, NOTED NR 1 CYLINDER BOTTOM PLUG LEAD NUT WOULD NOT TIGHTEN TO PROPER TENSION. FURTHER INVESTIGATION REVEALED THE LEAD WAS PULLED THROUGH THE NUT. THREE MORE NUTS REVEALED THE SAME STATE. IT IS BELIEVED THE NUTS WERE OVERTIGHTENED DURING A PREVIOUS INSPECTION.								
8530		CESSNA	LYC			CYLINDER	FAILED	789	11/27/93
		172N	O320H2AD			LW15318	SPARK PLUG AREA		CA931210002
	(CAN) CYLINDER LOWER SPARK PLUG HAD BROKEN FROM CYLINDER. PART OF CYLINDER AND SPARK PLUG INSERT HAD BROKEN AWAY WITH THE LOWER SPARK PLUG. THERE WAS EVIDENCE OF A PREVIOUS WELD REPAIR TO THE CYLINDER HEAD.								

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8520		CESSNA	CONT			CRANKSHAFT	BROKEN	1229	9/17/93
		A185F	IO520D				NR 2 BRG SADDLE		CA931013301
	(CAN) THE ENGINE OIL SCREEN FOUND CONTAMINATED WITH ALUMINUM AFTER NR 1 CYLINDER WAS REPLACED. NR 1 CYLINDER WAS REMOVED AND THE PISTON PIN END PLUG WAS FOUND WORN DOWN BY ONE-THIRD. THE PIN WAS REPLACED AND THE ENGINE OIL SYSTEM FLUSHED. THE ENGINE WAS PRE-OILED AS IT WAS TURNED. ENGINE WAS GROUND-RUN AND TEST FLOWN SERVICEABLE. 11.8 HOURS AFTER THIS WORK WAS COMPLETED A VISUAL INSPECTION REVEALED A HOLE IN THE CRANKCASE UNDER THE RT MAG INDICATING A BROKEN CONNECTING ROD. TEARDOWN REVEALED THE CRANKSHAFT BROKE DUE TO A BENDING OVERLOAD AT THE NR 3 CHEEK. THIS EXCESS BENDING WAS CAUSED BY LACK OF SUPPORT OF THE NR 2 CRANKSHAFT MAIN JOURNAL DUE TO BEARING FAILURE.								
8530		CESSNA	CONT			CYLINDER	CRACKED	933	10/4/93
		A185F	IO520D			635448CP	NR 2		CA931018603
	(CAN) NR 2 CYLINDER SPLIT DURING FLIGHT. PART NUMBER NOT INCLUDED IN TCM SB M91-6 FOR CYLINDER BARREL INSPECTION.								
8520		CESSNA	CONT			CRANKCASE	CRACKED	947	7/7/93
		U206	IO520F				NEAR NR 5 CYL		CA930722207
	(CAN) DURING INSPECTION OF POWERPLANT, A CRACK WHICH WAS WEEPING OIL WAS DISCOVERED NEAR THE FORWARD BOLT OF NR 5 CYLINDER. FURTHER INVESTIGATION USING NDT REVEALED THE DEFECT TO BE 2.2 INCHES IN LENGTH. THE POWERPLANT WAS REMOVED FROM THE AIRCRAFT.								
8530		CESSNA	CONT			CYLINDER	CRACKED	699	7/8/93
		U206A	IO520F			639272C	ENGINE		CA930719403
	(CAN) DURING 100 HR COMPRESSION CHECK, CYLINDER SHOWED 30/80 DIFFERENTIAL WITH NOTICEABLE NOISE WHERE AIR ESCAPED THROUGH CRACKS. CYLINDER WAS REPLACED.								
7260		CESSNA	CONT			OIL SEAL	WORN	66	6/26/93
		404CESSNA	GTSIO520M			2512	NR 1 ASSORY DRV		CA930709207
	(CAN) NR 1 ENGINE HAD OIL LEAK IN-FLIGHT AND ENGINE WAS SHUT DOWN. MAINTENANCE FOUND THE DRY AIR PUMP DRIVE SEAL PAD LEAKING OIL. THE OIL SEAL WAS NOT SEATING PROPERLY. A NEW SEAL WAS INSTALLED AND THE AIRCRAFT RETURNED TO SERVICE.								
8520		CESSNA	CONT			THRU BOLT	BROKEN		6/13/93
		421B	GTSIO520H			641931175	CRANKCASE		CA930709210
	(CAN) OIL LEAK NOTED ON ENGINE. REMOVAL OF NR 4 CYLINDER REVEALED THE FORWARD LOWER THROUGH BOLT WAS BROKEN. CRANKCASE WAS ALSO CRACKED BETWEEN NR 4 CYLINDER EXHAUST LIFTER HOLE AND LOWER FORWARD STUD. ENGINE RETURNED TO REPAIR AND OVERHAUL.								
7313		CESSNA	PWA			FUEL NOZZLE	TORCHING		3/30/98
		425	PT6A112				NR 2 ENG	142	CA980421002
	(CAN) DURING CLIMB AFTER TAKEOFF, NR 2 ENGINE POWER ROLLED BACK FROM 1244 POUNDS TORQUE TO 800 POUNDS, T5 TEMPERATURE WAS 670C AND NG WAS 81 PERCENT. PILOT RETURNED TO BASE. POWER SECTION WAS REMOVED FOR HSI AND EXTENSIVE TORCHING DAMAGE WAS FOUND ON THE COMPRESSOR TURBINE GUIDE VANES AND THE TURBINE WHEEL. THE POWER TURBINE AND GUIDE VANES WERE ALSO DAMAGED. THE DAMAGE WAS SUSPECTED TO HAVE BEEN CAUSED BY A FUEL NOZZLE TORCHING (FUEL STREAMING INSTEAD OF SPRAYING). THE ENGINE WAS 142 HOURS FROM AN HSI, WITH THE FUEL NOZZLES CLEANED AND FLOW CHECKED. THE PARTS WERE RETURNED FOR EVALUATION.								
7322		CESSNA	GARRTT	MCAULY	GARRTT	FUEL CONTROL	RUPTURED	40	9/29/93
		441	TPE33110	4HFR34C652		3971119	P3 BELLOWS		CA931214008
	(CAN) ENGINE LOST POWER ON TAKEOFF ROLL. GROUND INSPECTION REVEALED FULL LEAKING FROM THE FUEL CONTROL ASSEMBLY. INITIAL FUNCTIONAL TEST CONFIRMED SIGNIFICANT FUEL LEAK FROM UNIT. THE FUEL LEAK WAS OBSERVED TO BE COMING FROM THE PNEUMATIC SYSTEM. SPECIAL TESTING DETERMINED THAT FUEL WAS ENTERING THE PNEUMATIC CIRCUIT FROM THE AREA AROUND THE BELLOWS ASSEMBLY. THE BELLOWS ASSEMBLY WAS REMOVED & A PRESSURE TEST REVEALED A RUPTURE BETWEEN ONE OF THE CONVOLUTIONS. LOSS OF PRESSURE RESULTED IN REDUCED FUEL FLOW & LOSS OF POWER. SINCE THE PNEUMATIC CIRCUIT IS "VENTED" OVERBOARD FUEL WHICH ENTERS THE AIR SYSTEM WILL "LEAK" FROM THE VARIOUS PNEUMATIC VENTING HOLES/PORTS.								
7322		CESSNA	GARRTT			FUEL CONTROL	LEAKING	40	9/29/93
		441	TPE33110			8971119	ENGINE		CA931014407
	(CAN) ENGINE FAILED IN FLIGHT. GROUND INSPECTION REVEALED FUEL CONTROL UNIT LEAKING. PART TC: 39.								

ATA OPER	REG. NO SERIAL NO	ACFT MAKE ACFT MODEL	ENG MAKE ENG MDL	PROP MAKE PROP MDL	COMP MFG COMP MDL	PART NAME PART NUMBER	PART COND PART LOC.	TT TSO	DIFF. DATE OPER CONT NO
8530		DHAV	PWA			CYLINDER	DEFECTIVE	80	8/30/93
		DHC2EVANS	R985AN14B				ENGINE		CA931102103
	(CAN) OVERHAULED ENGINE WITH "CERMICHROME" CYLINDERS PURCHASED FROM AERO ENGINES INC., CALIFORNIA. ENGINE ACTUALLY HAD "NU-CHROME" CYLINDERS INSTALLED AND CONSUMED 3 LITRES OF OIL PER HOUR FOR THE 80 HOURS SINCE INSTALLATION (TSO). THE ENGINE WAS REMOVED AND RETURNED TO AERO ENGINE. NO RESPONSE WAS FORTHCOMING AS TO THE PROBLEM OR ANY CONCLUSION ARRIVED AT ON TEARDOWN.								
8530		DHAV	PWA			CYLINDER	FAILED	538	9/18/93
		DHC3	R134059			2578	NR 3 EXH VLV		CA931018608
	(CAN) NR 3 CYLINDER EXHAUST VALVE ROCKER BOSS BROKE OFF FROM CYLINDER HEAD IN CRUISE, SEVERE BACKFIRING AND POWER LOSS OF ENGINE FORCED PILOT TO LAND IMMEDIATELY ON SMALL LAKE. OIL SCREENS AND SUMP INSPECTED AND NR 3 CYLINDER REPLACED. AIRCRAFT FERRIED BACK TO BASE.								
7230		DHAV	PWA			BEARING	SEIZED	17799	9/24/93
		DHC6300	PT6A27			37194	COMPRESSOR	966	CA931014404
	(CAN) NR 1 ENGINE MADE A BANGING SOUND, SURGED, AND THE T5 TEMPERATURE WENT TO 900 DEGREES CELSIUS. ENGINE WAS SHUTDOWN AND FLIGHT DIVERTED. POS-FLIGHT INSPECTION REVEALED OIL LEAKING FROM NR 2 BEARING AREA. OIL FILTER CHECKED AND FOUND CONTAMINATED WITH NON-FERROUS METAL PARTICLES. COMPRESSOR 1ST STAGE BLADES CHECKED AND FOUND RUBBING ON THE TOP PART OF COMPRESSOR CASE. ENGINE SEIZED AND WOULD NOT TURN OVER. TEARDOWN REVEALED CAUSED IFSD WAS NR 1 BEARING DISTRESS, DUE TO HEAVY DAMAGE OF THE BEARING FRACTURE SURFACE. CAUSE OF DISTRESS WAS NOT DETERMINED. PART TC: 17,693.								
7250		DHAV	PWA			VANE	FRACTURED	229	7/8/93
		DHC6200	PT6A20				COMPRESS TURBINE		CA930727101
	(CAN) PERSISTENT HIGH TEMPERATURE ON NR 1 ENGINE. TAKEOFF MONITOR OAT + 6 DEGREES CELSIUS, 5 SECONDS STABILIZE AT 85 PERCENT NG, TORQUE 40/40; NP 97/98, T5 740/720, NG 95/100, FUEL FLOW 380/375. AFTER TROUBLESHOOTING CARRIED OUT, THE ENGINE WAS BORESCOPED AND ONE COMPRESSOR TURBINE VANE WAS FOUND FRACTURED. ONLY HALF THE VANE WAS THERE. ENGINE REMOVED AND SENT TO R&O.								
7421		DHAV	PWA			IGNITOR	LOOSE		9/29/93
		DHC6100	PT6A20			AGF26	NR 2 ENGINE		CA931015101
	(CAN) ABOUT 1 MINUTE AFTER STARTING NR 2 ENGINE, THE NR 2 FIRE WARNING LIGHT CAME ON, WENT OUT 10 SECONDS AFTER SHUTDOWN. NO SIGNS OF SMOKE OR FIRE. NR 2 IGNITOR LOOSE IN COWL.								
8530		HUGHES	LYC			CYLINDER	FAILED	29	6/17/93
		269C	HIO360D1A			LW1947	ENGINE		CA930713601
	(CAN) CYLINDERS FAILED. ENGINE REPLACED.								
7414		MOONEY	LYC		BENDIX	MAGNETO	FAILED	1350	11/18/93
		M20E	IO360A1A			116352	DISTRIBUTOR BLOC		CA931207301
	(CAN) INSPECTION REVEALED THE BAKELITE AROUND THE BUSHING AREA OF THE BUSING ON THE DISTRIBUTOR BLOCK WAS MISSING. THE SHAFT SPUN FREELY IN THE PLASTIC GEAR, THE FINGER THAT DIRECTS THE SPARK TO EACH CYLINDER WAS LOOSE AND IT WAS WEARING AWAY AS WERE ALL THE TABS IN THE DISTRIBUTOR BLOCK.								
7261		PIPER	LYC			OIL LINE	CUT	6730	12/22/97
		PA23250	IO540C4B5			1781503	RT NACELLE		CA980113014
	(CAN) AT SHUTDOWN OIL LEAKED OUT UNDER RH NACELLE ONTO LANDING GEAR DOORS. OIL PRESSUR LINE CUT UNDER CLAMP AT FIREWALL, TWO PLACES, WIDTH OF CLAMP. IMPROPER SIZE CLAMP. REPLACED CLAMP.								
7320		PIPER	PWA			P3 LINE	FRACTURED	3999	6/24/93
		PA31T	PT6A28			331448	ENGINE		CA930709205
	(CAN) ON START-UP, ENGINE WOULD NOT ACCELERATE ABOVE IDLE. THE P3 LINE BETWEEN THE P3 FILTER AND FCU WAS FOUND BROKEN. PART TC: 4,404.								
7414		SCWZER	CONT		BOSCH	MAGNETO	CRACKED	47	7/9/93
		G164	W6706A			SB9RU3	RT MAG DIST BLK		CA930719411
	(CAN) DURING RUN-UP PRIOR TO FLIGHT, PILOT REPORTED 160 TO 200 RPM DROP ON RIGHT MAGNETO SYSTEM. TROUBLESHOOTING ISOLATED THE MAGNETO AS THE PROBLEM. UPON REMOVAL, THE DISTRIBUTOR BLOCK WAS FOUND CRACKED WHERE THE IGNITION LEADS PICK UP THEIR SPARK. MAGNETO WAS REPLACED.								

ATA OPER	REG. NO SERIAL NO	ACFT MAKE ACFT MODEL	ENG MAKE ENG MDL	PROP MAKE PROP MDL	COMP MFG COMP MDL	PART NAME PART NUMBER	PART COND PART LOC.	TT TSO	DIFF. DATE OPER CONT NO
7320		SKRSKY	ALLSN			TUBE B NUT	LOOSE		10/22/93
		S76A	250C30S			6893073	NR 2 ENG		CA931103102

(CAN) AIRCRAFT LOST POWER ON NR 2 ENGINE. ENGINE HAD INSTABILITY IN POWER RANGE, ALL PNEUMATIC LINES WERE CHECKED FOR LEAKAGE, AIR LEAK WAS FOUND AT "B" NUT OF P/N 6893073 TUBE.

(End of INTERNATIONAL SERVICE DIFFICULTY REPORT SUMMARY - ENGINES)

INTERNATIONAL SERVICE DIFFICULTY REPORT SUMMARY - COMPONENTS

ATA OPER	REG. NO SERIAL NO	ACFT MAKE ACFT MODEL	ENG MAKE ENG MDL	PROP MAKE PROP MDL	COMP MFG COMP MDL	PART NAME PART NUMBER	PART COND PART LOC.	TT TSO	DIFF. DATE OPER CONT NO
2562		CESSNA			NARCO	ANTENNA	FRACTURED	700	5/1/93
		172M			ELT10	165211	ELT		CA931015202
	(CAN) ANTENNA WHIP FRACTURED AT BASE AS A RESULT OF WHIPPING BACK AND FORTH IN FLIGHT. PROBLEM EXACERBATED BY ICE ACCUMULATION.								
3418		DHAV	PWA			SWITCH	FAILED		5/29/93
		DHC6300	PT6A27			61373	STALL WARN		CA930719412
	(CAN) STALL WARNING SWITCH FAILED.								
3418		DHAV	PWA			SWITCH	FAILED		6/12/93
		DHC6300	PT6A27			61373	STALL WARN		CA930719408
	(CAN) STALL WARNING SWITCH FAILED.								
3455		PIPER			KING	POTENTIOMETER	BROKEN		7/12/93
		PA34200			KR87	133138	ADF WIRES		CA930722210
	(CAN) PILOT REPORTED INTERMITTENT 15 DEGREE ERROR ON ADF. BENCH TEST FOUND INTERMITTENT, 25 DEGREE ERROR. POTENTIOMETER R-177 BROKEN WIRES.								

(End of INTERNATIONAL SERVICE DIFFICULTY REPORT SUMMARY - COMPONENTS)

INTERNATIONAL SERVICE DIFFICULTY REPORT SUMMARY - PROPELLERS

ATA OPER	REG. NO SERIAL NO	ACFT MAKE ACFT MODEL	ENG MAKE ENG MDL	PROP MAKE PROP MDL	COMP MFG COMP MDL	PART NAME PART NUMBER	PART COND PART LOC.	TT TSO	DIFF. DATE OPER CONT NO

(There was no data for this report.)

(End of INTERNATIONAL SERVICE DIFFICULTY REPORT SUMMARY - PROPELLERS)

U.S. Department
of Transportation
Federal Aviation Administration

SERVICE DIFFICULTY REPORT SUMMARY

GENERAL AVIATION - INDEX

The following information provides a tally of the Service Difficulty Reports (SDR's) contained in this weeks issue of the General Aviation SDR Summary. The totals represent only a summation of the SDR's that were submitted to the FAA, Aviation Data Systems Branch, AFS-620, and processed in time for inclusion in the Summary. The first table is a tally of the number of SDR's submitted through the indicated Flight Standards District Office (FSDO). The second table sorts the SDR's by the aircraft or equipment make and model. The heading at the top of each table provides a two digit Joint Aircraft System/Component (JASC) code grouping (e.g., JASC codes 1100 thru 1800 are represented by the heading labeled 11-18) which categorizes in general, the problem areas for each reported discrepancy.

The Flight Standards Service Difficulty Program objective is to achieve prompt and appropriate correction of conditions adversely affecting continued airworthiness of aeronautical products. This is accomplished by the collection of Service Difficulty and Malfunction or Defect Reports. SDR's are consolidation and collation into common data base where they are analyzed for trends, problems, and alert information. This information is then disseminated to the appropriate segments of the aviation community and to other FAA offices.

The number of SDR's submitted is not an indicator of the mechanical reliability or fitness of an air carrier's aircraft fleet and should not be used as such. The air carriers certificate holding office has the primary responsibility for planning, programming evaluations, and assessing the performance of operators. Questions regarding an air carrier's fleet performance should be directed to the appropriate Flight Standards District Office, Certificate Management Office, or Certificate Management Unit.

GENERAL AVIATION SUMMARY INDEX BY DISTRICT OFFICE

DISTRICT OFFICE	SDR TOTALS BY FAA ATA SYSTEM CHAPTER								
	11-18	21-29	30-38	45-49	51-57	61-67	71-79	80-85	TOTAL
AL 03	0	0	0	0	0	0	0	1	1
CA	0	14	11	0	16	10	35	10	96
CE 03	0	0	0	0	0	0	1	0	1
CE 09	0	0	2	0	0	0	0	0	2
EA 03	0	0	0	0	0	1	2	0	3
EA 05	0	0	0	0	2	0	0	0	2
EA 07	0	2	0	0	0	1	0	0	3
EA 09	0	0	1	0	0	0	0	0	1
EA 13	0	1	1	0	0	1	0	0	3
EA 17	0	2	0	0	0	0	0	0	2
EA 21	0	0	0	0	0	0	1	0	1
EA 23	0	0	0	0	0	1	0	0	1
EA 25	0	1	0	0	0	0	0	0	1
GL 09	0	1	0	0	0	0	0	0	1
GL 11	0	0	1	0	0	0	1	0	2
GL 13	0	2	1	0	0	0	0	0	3
GL 19	0	0	1	0	0	0	0	0	1
GL 23	0	1	0	0	1	0	0	0	2
NE 01	0	1	0	0	0	0	0	0	1
NE 03	0	0	0	0	0	0	1	0	1
NM 01	0	0	0	0	0	0	2	0	2
NM 03	0	0	1	0	5	0	4	1	11
NM 07	0	1	1	0	0	2	0	0	4
NM 09	0	2	2	0	1	0	2	0	7
NM 13	0	0	1	0	0	0	0	0	1
SO 11	0	0	1	0	0	0	0	0	1

DISTRICT OFFICE	SDR TOTALS BY FAA ATA SYSTEM CHAPTER								
	11-18	21-29	30-38	45-49	51-57	61-67	71-79	80-85	TOTAL
SO 14	0	0	0	0	0	0	0	1	1
SO 15	0	0	0	0	1	0	0	0	1
SO 33	0	1	1	0	0	0	1	0	3
SW 01	0	0	0	0	0	0	0	1	1
SW 03	0	54	51	0	15	83	38	0	241
SW 05	0	1	1	0	0	0	0	1	3
SW 99	0	2	3	0	0	0	1	1	7
WP 09	0	0	1	0	1	0	0	0	2
WP 19	0	0	0	0	0	2	0	0	2
TOTALS	**0**	**86**	**81**	**0**	**42**	**101**	**89**	**16**	**415**

(End of GENERAL AVIATION SUMMARY INDEX by DISTRICT OFFICE Report)

GENERAL AVIATION SUMMARY INDEX by MANUFACTURER MAKE and MODEL

AIRCRAFT MAKE	AIRCRAFT MODEL	SDR TOTALS BY FAA ATA SYSTEM CHAPTER								
		11-18	21-29	30-38	45-49	51-57	61-67	71-79	80-85	TOTAL
AEROSP	AS355F1	0	0	2	0	0	0	0	0	2
AEROSP	AS355F2	0	0	0	0	0	0	1	0	1
AEROSP	SA315B	0	0	0	0	0	1	1	0	2
AEROSP	SA365N1	0	2	0	0	0	1	0	0	3
AGUSTA	A109K2	0	1	1	0	0	2	0	0	4
AMTRMO	SONERAI2	0	0	0	0	0	0	1	0	1
AYRES	S2RNORMAL	0	1	0	0	0	0	0	0	1
BEECH	100BEECH	0	0	0	0	1	0	0	0	1
BEECH	200BEECH	0	1	2	0	5	0	0	0	8
BEECH	200CBEECH	0	0	0	0	0	0	1	0	1
BEECH	58	0	0	1	0	0	0	0	0	1
BEECH	95B55	0	0	0	0	0	0	3	0	3
BEECH	95B55B	0	0	1	0	0	0	0	0	1
BEECH	99	0	1	1	0	0	0	0	0	2
BEECH	A100	0	0	0	0	1	0	0	0	1
BEECH	B99	0	1	0	0	0	0	0	0	1
BEECH	C90	0	0	0	0	0	0	1	0	1
BEECH	C99	0	2	0	0	0	0	0	0	2
BEECH	E55	0	0	1	0	0	0	0	0	1
BEECH	E90	0	0	0	0	1	0	0	0	1
BEECH	F33A	0	0	0	0	1	0	0	0	1
BEECH	G18S	0	0	0	0	0	0	0	1	1
BELL	204B	0	0	0	0	0	2	0	0	2
BELL	206B	0	2	2	0	0	3	4	0	11
BELL	206B3	0	2	2	0	0	3	1	0	8
BELL	206L	0	1	0	0	0	8	3	0	12
BELL	206L1	0	3	9	0	2	19	11	0	44

AIRCRAFT MAKE	AIRCRAFT MODEL	SDR TOTALS BY FAA ATA SYSTEM CHAPTER 11-18	21-29	30-38	45-49	51-57	61-67	71-79	80-85	TOTAL
BELL	206L3	0	7	3	0	2	3	2	0	17
BELL	206L4	0	0	0	0	0	0	1	0	1
BELL	212	0	0	2	0	0	2	3	0	7
BELL	214ST	0	7	1	0	0	9	1	0	18
BELL	222U	0	1	0	0	0	0	0	0	1
BELL	230	0	0	0	0	1	0	1	0	2
BELL	407	0	2	2	0	2	4	2	0	12
BELL	412	0	17	10	0	4	9	0	0	40
BOEING	1072	0	2	0	0	0	0	2	0	4
BOLKMS	BK117A3	0	1	1	0	0	0	1	0	3
BOLKMS	BK117A4	0	0	0	0	0	1	0	0	1
BOLKMS	BK117B1	0	3	2	0	1	4	0	0	10
BOLKMS	BK117B2	0	0	1	0	0	0	0	0	1
BOLKMS	BO105C	0	2	0	0	2	0	1	0	5
BOLKMS	BO105CB*	0	0	1	0	0	2	0	0	3
BOLKMS	BO105CBS	0	0	0	0	1	1	1	0	3
BOLKMS	BO105S	0	4	5	0	0	11	10	0	30
CESSNA	150L	0	1	0	0	0	0	0	0	1
CESSNA	152	0	0	0	0	1	0	0	0	1
CESSNA	172E	0	2	0	0	0	0	0	0	2
CESSNA	172L	0	1	1	0	0	0	1	1	4
CESSNA	172M	0	1	0	0	0	0	1	0	2
CESSNA	172N	0	0	1	0	1	0	0	1	3
CESSNA	172P	0	0	1	0	0	0	0	1	2
CESSNA	172RG	0	0	1	0	0	0	0	0	1
CESSNA	175	0	0	0	0	0	0	3	0	3
CESSNA	180J	0	1	0	0	0	0	0	0	1

AIRCRAFT MAKE	AIRCRAFT MODEL	SDR TOTALS BY FAA ATA SYSTEM CHAPTER 11-18	21-29	30-38	45-49	51-57	61-67	71-79	80-85	TOTAL
CESSNA	182C	0	0	1	0	0	0	0	0	1
CESSNA	182F	0	0	0	0	0	0	0	1	1
CESSNA	182J	0	0	0	0	0	0	2	0	2
CESSNA	182P	0	0	0	0	0	1	1	0	2
CESSNA	208B	0	0	1	0	0	0	0	0	1
CESSNA	210L	0	0	1	0	1	0	0	0	2
CESSNA	310I	0	0	1	0	0	0	0	0	1
CESSNA	310R	0	0	0	0	1	0	0	0	1
CESSNA	335	0	0	0	0	0	0	1	0	1
CESSNA	402C	0	0	0	0	0	0	0	1	1
CESSNA	404CESSNA	0	0	0	0	0	0	1	0	1
CESSNA	421B	0	0	0	0	0	0	0	1	1
CESSNA	425	0	0	0	0	0	0	1	0	1
CESSNA	441	0	0	1	0	0	0	2	0	3
CESSNA	550	0	1	2	0	0	0	0	0	3
CESSNA	A185E	0	2	0	0	0	0	0	0	2
CESSNA	A185F	0	1	0	0	0	0	0	2	3
CESSNA	R182	0	1	0	0	0	0	0	0	1
CESSNA	T337B	0	0	0	0	1	0	0	0	1
CESSNA	U206	0	0	0	0	0	0	2	1	3
CESSNA	U206A	0	0	0	0	0	0	0	1	1
CESSNA	U206G	0	0	0	0	0	0	0	1	1
DHAV	DHC2EVANS	0	0	0	0	0	0	0	1	1
DHAV	DHC2MK1	0	0	0	0	1	0	0	0	1
DHAV	DHC3	0	0	0	0	1	0	0	1	2
DHAV	DHC6100	0	0	0	0	1	0	1	0	2
DHAV	DHC6200	0	0	0	0	0	0	1	0	1

AIRCRAFT MAKE	AIRCRAFT MODEL	SDR TOTALS BY FAA ATA SYSTEM CHAPTER 11-18	21-29	30-38	45-49	51-57	61-67	71-79	80-85	TOTAL
DHAV	DHC6300	0	0	3	0	0	0	1	0	4
ENSTRM	F28C	0	0	0	0	0	0	1	0	1
GULSTM	695	0	1	0	0	0	0	0	0	1
HILLER	UH12E	0	0	0	0	0	0	1	0	1
HUGHES	269C	0	0	0	0	0	0	0	1	1
HUGHES	369D	0	0	0	0	0	3	0	0	3
LUSCOM	8A	0	0	1	0	0	0	0	0	1
MOONEY	M20E	0	0	0	0	0	0	1	0	1
MOONEY	M20K	0	1	0	0	0	0	0	0	1
NOORDN	UC64A	0	0	0	0	1	0	0	0	1
PARTEN	P68C	0	0	0	0	0	0	1	0	1
PIPER	PA23250	0	1	2	0	0	0	1	0	4
PIPER	PA28140	0	3	0	0	0	0	0	0	3
PIPER	PA28161	0	0	0	0	2	0	0	0	2
PIPER	PA28236	0	0	0	0	0	0	0	1	1
PIPER	PA28R201T	0	0	0	0	2	0	0	0	2
PIPER	PA30	0	0	1	0	0	0	0	0	1
PIPER	PA31	0	0	1	0	0	0	0	0	1
PIPER	PA31350	0	0	0	0	1	0	3	0	4
PIPER	PA31T	0	0	0	0	1	0	1	0	2
PIPER	PA32R301	0	0	1	0	0	0	0	0	1
PIPER	PA34200	0	0	1	0	0	0	0	0	1
PIPER	PA34220T	0	0	1	0	0	0	0	0	1
PIPER	PA60600	0	0	1	0	0	0	0	0	1
SCWZER	G164	0	0	0	0	0	0	1	0	1
SKRSKY	S76	0	0	0	0	1	0	0	0	1
SKRSKY	S76A	0	5	6	0	0	4	6	0	21

AIRCRAFT MAKE	AIRCRAFT MODEL	SDR TOTALS BY FAA ATA SYSTEM CHAPTER 11-18	21-29	30-38	45-49	51-57	61-67	71-79	80-85	TOTAL
SNIAS	AS350B	0	0	2	0	1	1	0	0	4
SNIAS	AS350B2	0	1	0	0	0	6	1	0	8
SNIAS	AS350BA	0	0	0	0	0	1	0	0	1
SOCATA	TB20TRINIDAD	0	0	0	0	1	0	0	0	1
UROCOP	EC135P1	0	0	0	0	0	0	1	0	1
VARGA	2150AMORISY	0	0	0	0	0	0	1	0	1
TOTALS		**0**	**86**	**81**	**0**	**42**	**101**	**89**	**16**	**415**

(End of AIR CARRIER SUMMARY INDEX by OPERATOR Report)

JOINT AIRCRAFT SYSTEM/COMPONENT CODE TABLE

PREFACE

The Joint Aircraft System/Component (JASC) Code Table is a modified version of the Air Transport Association of America (ATA), Specification 100 code. It was developed by the Federal Aviation Administration's (FAA), Aviation Data Systems Branch (AFS-620). Technical support was provided by the Galaxy Scientific Corporation, and various representatives of the air carrier and general aviation community.

Over the past four years, the JASC format of the ATA Spec 100 code has gained widespread industry acceptance. In a harmonized effort, the FAA's counterparts in Australia and Canada have adopted the JASC code with only a few exceptions. Some Canadian aircraft manufacturers have also recently adopted this new stardard.

This code table is constructed by using the new JASC four (4) digit code, along with an abbreviated code title. The abbreviated titles have been modified in some cases to clarify the intended use of the accompanying code. This table can be used as a quick reference chart, to assist in the coding and review of aircraft structures or systems data (i.e., Service Difficulty Report (SDR), Accident/Incident Report).

The current coding scheme used in the JASC code was introduced in May 1991, for the technical classification of SDR's. Its predecessor, the FAA aircraft system/component code, was a similar but more complex eight-digit code which was developed over 25 years ago. It was constructed around the computer technology of that period. It consisted of a four digit numerical code plus a four alpha character code to make data retrieval possible. Since that time, computer technology has advanced many fold. Reducing the code from eight to four characters simplifies coding, and in some cases, makes JASC coding match the ATA Specification 100 first three digits, which are used to identify aircraft systems. The ATA code does not reference the fourth digit, so it is free to be used for identifying components.

The JASC code aircraft structural section has increased due to problems inherent with aging aircraft. As an example, FAA code 5301 SXBD was expanded to 20 items due to the high rate of reporting in this area (8021 structural reports were received in 1989). In some instances, there was very little reporting and codes were combined into other systems if the safety impact was not significant. The overall reduction in codes has been from 568 FAA codes to 488 JASC codes, with the significant increase being in the structural area as stated earlier.

The JASC code divides the engine section into two major code groups to separate the turbine and reciprocating engines. The codes for the turbine engines are in JASC Chapter 72, Turbine/Turboprop Engine. The codes for the reciprocating engines are now exclusively found in JASC Chapter 85, Reciprocating Engine.

The other major deviation from ATA Spec 100 is in ATA section 2730, specifically involves the stall warning system. Early technology (primarily on smaller aircraft) directly linked the sensing of flight attitude to one of the components which furnished the means of manually controlling the flight attitude characteristics (elevator). Today, most large transport category aircraft utilize electronic units to sense the change in the environmental condition called stall, and use the data to influence navigation. ATA section 3410, Flight Environment Data, includes high speed warning in its code definition. Stall warning (low speed) is the reciprocal term of high speed warning, so its filing under the same code appears more logical. Thus, with the JASC code it was decided to move the stall warning system to Chapter 34 under the separate code JASC code 3418, Stall Warning System.

The FAA is continuing to pursue worldwide involvement from operators and manufacturers in addressing the need for international standardization of aircraft system/component codes. The ultimate goal is to develop a universal aircraft/component numbering standard which can be used in the manufacturer's maintenance manual, wiring diagram manual, system manuals and illustrated parts catalog. This harmonized standard must be a usable standard for the aircraft manufacturers, air carrier operators and the general aviation community.

We welcome comments and feedback regarding the possible forming of working groups to achieve this long range consideration of possibly harmonizing the ATA Specification 100 code and the JASC code. Comments may be directed to the FAA, Aviation Data Sytem Branch, AFS-620, P.O. Box 25082, Oklahoma City, OK 73125.

JOINT AIRCRAFT SYSTEM/COMPONENT CODE TABLE

JASC/ TITLE

11 PLACARDS AND MARKINGS

1100 PLACARDS AND MARKINGS

12 SERVICING

1210 FUEL SERVICING
1220 OIL SERVICING
1230 HYDRAULIC FLUID SERVICING
1240 COOLANT SERVICING

18 HELICOPTER VIBRATION

1800 HELICOPTER VIB/NOISE ANALYSIS
1810 HELICOPTER VIBRATION ANALYSIS
1820 HELICOPTER NOISE ANALYSIS

21 AIR CONDITIONING

2100 AIR CONDITIONING SYSTEM
2110 CABIN COMPRESSOR SYSTEM
2120 AIR DISTRIBUTION SYSTEM
2121 AIR DISTRIBUTION FAN
2130 CABIN PRESSURE CONTROL SYSTEM
2131 CABIN PRESSURE CONTROLLER
2132 CABIN PRESSURE INDICATOR
2133 PRESSURE REGUL/OUTFLOW VALVE
2134 CABIN PRESSURE SENSOR
2140 HEATING SYSTEM
2150 CABIN COOLING SYSTEM
2160 CABIN TEMPERATURE CONTROL SYSTEM
2161 CABIN TEMPERATURE CONTROLLER
2162 CABIN TEMPERATURE INDICATOR
2163 CABIN TEMPERATURE SENSOR
2170 HUMIDITY CONTROL SYSTEM

22 AUTO FLIGHT

2200 AUTO FLIGHT SYSTEM
2210 AUTOPILOT SYSTEM
2211 AUTOPILOT COMPUTER
2212 ALTITUDE CONTROLLER
2213 FLIGHT CONTROLLER
2214 AUTOPILOT TRIM INDICATOR
2215 AUTOPILOT MAIN SERVO
2216 AUTOPILOT TRIM SERVO
2220 SPEED-ATTITUDE CORRECT. SYSTEM
2230 AUTO THROTTLE SYSTEM
2250 AERODYNAMIC LOAD ALLEVIATING

23 COMMUNICATIONS

2300 COMMUNICATIONS SYSTEM
2310 HF COMMUNICATION SYSTEM
2311 UHF COMMUNICATION SYSTEM
2312 VHF COMMUNICATION SYSTEM
2320 DATA TRANSMISSION AUTO CALL
2330 ENTERTAINMENT SYSTEM
2340 INTERPHONE & PA SYSTEM
2350 AUDIO INTEGRATING SYSTEM
2360 STATIC DISCHARGE SYSTEM
2370 AUDIO/VIDEO MONITORING

24 ELECTRICAL POWER

2400 ELECTRICAL POWER SYSTEM
2410 ALTERNATOR-GENERATOR DRIVE
2420 AC GENERATION SYSTEM
2421 AC GENERATOR-ALTERNATOR
2422 AC INVERTER
2423 PHASE ADAPTER

24 ELECTRICAL POWER CONT'D

2424 AC REGULATOR
2425 AC INDICATING SYSTEM
2430 DC GENERATING SYSTEM
2431 BATTERY OVERHEAT WARN. SYSTEM
2432 BATTERY/CHARGER SYSTEM
2433 DC RECTIFIER-CONVERTER
2434 DC GENERATOR-ALTERNATOR
2435 STARTER-GENERATOR
2436 DC REGULATOR
2437 DC INDICATING SYSTEM
2440 EXTERNAL POWER SYSTEM
2450 AC POWER DISTRIBUTION SYSTEM
2460 DC POWER/DISTRIBUTION SYSTEM

25 EQUIPMENT/FURNISHINGS

2500 CABIN EQUIPMENT/FURNISHINGS
2510 FLIGHT COMPARTMENT EQUIPMENT
2520 PASSENGER COMPARTMENT EQUIPMENT
2530 BUFFET/GALLEYS
2540 LAVATORIES
2550 CARGO COMPARTMENTS
2551 AGRICULTURAL SPRAY SYSTEM
2560 EMERGENCY EQUIPMENT
2561 LIFE JACKET
2562 EMERGENCY LOCATOR BEACON
2563 PARACHUTE
2564 LIFE RAFT
2565 ESCAPE SLIDE
2570 ACCESSORY COMPARTMENT
2571 BATTERY BOX STRUCTURE
2572 ELECTRONIC SHELF SECTION

26 FIRE PROTECTION

2600 FIRE PROTECTION SYSTEM
2610 DETECTION SYSTEM
2611 SMOKE DETECTION
2612 FIRE DETECTION
2613 OVERHEAT DETECTION
2620 EXTINGUISHING SYSTEM
2621 FIRE BOTTLE, FIXED
2622 FIRE BOTTLE, PORTABLE

27 FLIGHT CONTROLS

2700 FLIGHT CONTROL SYSTEM
2701 CONTROL COLUMN SECTION
2710 AILERON CONTROL SYSTEM
2711 AILERON TAB CONTROL SYSTEM
2720 RUDDER CONTROL SYSTEM
2721 RUDDER TAB CONTROL SYSTEM
2722 RUDDER ACTUATOR
2730 ELEVATOR CONTROL SYSTEM
2731 ELEVATOR TAB CONTROL SYSTEM
2740 STABILIZER CONTROL SYSTEM
2741 STABILIZER POSITION INDICATING
2742 STABILIZER ACTUATOR
2750 TE FLAP CONTROL SYSTEM
2751 TE FLAP POSITION IND. SYSTEM
2752 TE FLAP ACTUATOR
2760 DRAG CONTROL SYSTEM
2761 DRAG CONTROL ACTUATOR
2770 GUST LOCK/DAMPER SYSTEM
2780 LE FLAP CONTROL SYSTEM
2781 LE FLAP POSITION IND. SYSTEM
2782 LE FLAP ACTUATOR

28 FUEL

2800 AIRCRAFT FUEL SYSTEM
2810 FUEL STORAGE
2820 ACFT FUEL DISTRIB. SYSTEM
2821 ACFT FUEL FILTER/STRAINER
2822 FUEL BOOST PUMP
2823 FUEL SELECTOR/SHUTOFF VALVE
2824 FUEL TRANSFER VALVE
2830 FUEL DUMP SYSTEM
2840 ACFT FUEL INDICATING
2841 FUEL QUANTITY INDICATOR
2842 FUEL QUANTITY SENSOR
2843 FUEL TEMPERATURE INDICATING
2844 FUEL PRESSURE INDICATOR

29 HYDRAULIC POWER

2900 HYDRAULIC POWER SYSTEM
2910 HYDRAULIC, MAIN SYSTEM
2911 HYDRAULIC POWER-ACCUMULATOR-MAIN
2912 HYDRAULIC FILTER-MAIN SYSTEM
2913 HYDRAULIC PUMP. ELECT-ENG.-MAIN
2914 HYDRAULIC HANDPUMP-MAIN
2915 HYDRAULIC PRESSURE RELIEF VLV-MAIN
2916 HYDRAULIC RESERVOIR-MAIN
2917 HYDRAULIC PRESSURE REGULATOR-MAIN
2920 HYDRAULIC, AUXILIARY SYSTEM
2921 HYDRAULIC ACCUMULATOR-AUXILIARY
2922 HYDRAULIC FILTER-AUXILIARY
2923 HYDRAULIC PUMP-AUXILIARY
2925 HYDRAULIC PRESSURE RELIEF-AUXILIARY
2926 HYDRAULIC RESERVOIR-AUXILIARY
2927 HYDRAULIC PRESSURE REGULATOR-AUX.
2930 HYDRAULIC SYSTEM INDICATING
2931 HYDRAULIC PRESSURE INDICATOR
2932 HYDRAULIC PRESSURE SENSOR
2933 HYDRAULIC QUANTITY INDICATOR
2934 HYDRAULIC QUANTITY SENSOR

30 ICE AND RAIN PROTECTION

3000 ICE/RAIN PROTECTION SYSTEM
3010 AIRFOIL ANTI/DE-ICE SYSTEM
3020 AIR INTAKE ANTI/DE-ICE SYSTEM
3030 PITOT/STATIC ANTI-ICE SYSTEM
3040 WINDSHIELD/DOOR RAIN/ICE REMOVAL
3050 ANTENNA/RADOME ANTI-ICE/DE-ICE SYSTEM
3060 PROP/ROTOR ANTI-ICE/DE-ICE SYSTEM
3070 WATER LINE ANTI-ICE SYSTEM
3080 ICE DETECTION

31 INSTRUMENTS

3100 INDICATING/RECORDING SYSTEM
3110 INSTRUMENT PANEL
3120 INDEPENDENT INSTRUMENTS (CLOCK, ETC.)
3130 DATA RECORDERS (FLT/MAINT)
3140 CENTRAL COMPUTERS (EICAS)
3150 CENTRAL WARNING
3160 CENTRAL DISPLAY
3170 AUTOMATIC DATA

32 LANDING GEAR

3200 LANDING GEAR SYSTEM
3201 LANDING GEAR/WHEEL FAIRING
3210 MAIN LANDING GEAR
3211 MAIN LANDING GEAR ATTACH SECTION
3212 EMERGENCY FLOTATION SECTION
3213 MAIN LANDING GEAR STRUT/AXLE/TRUCK
3220 NOSE/TAIL LANDING GEAR
3221 NOSE/TAIL LANDING GEAR ATTACH SECTION
3222 NOSE/TAIL LANDING GEAR STRUT/AXLE
3230 LANDING GEAR RETRACT/EXT. SYSTEM
3231 LANDING GEAR DOOR RETRACT SECTION
3232 LANDING GEAR DOOR ACTUATOR
3233 LANDING GEAR ACTUATOR
3234 LANDING GEAR SELECTOR
3240 LANDING GEAR BRAKE SYSTEM
3241 BRAKE ANTI-SKID SECTION
3242 BRAKE
3243 MASTER CYL/BRAKE VALVE
3244 TIRE
3245 TIRE TUBE
3246 WHEEL/SKI/FLOAT
3250 LANDING GEAR STEERING SYSTEM
3251 STEERING UNIT
3252 SHIMMY DAMPER
3260 LANDING GEAR POSITION & WARNING
3270 AUXILIARY GEAR (TAIL SKID)

33 LIGHTS

3300 LIGHTING SYSTEM
3310 FLIGHT COMPARTMENT LIGHTING
3320 PASSENGER COMPARTMENT LIGHTING
3330 CARGO COMPARTMENT LIGHTING
3340 EXTERIOR LIGHTING
3350 EMERGENCY LIGHTING

34 NAVIGATION

3400 NAVIGATION SYSTEM
3410 FLIGHT ENVIRONMENT DATA
3411 PITOT/STATIC SYSTEM
3412 OUTSIDE AIR TEMP. IND./SENSOR
3413 RATE OF CLIMB INDICATOR
3414 AIRSPEED/MACH INDICATING
3415 HIGH SPEED WARNING
3416 ALTIMETER, BAROMETRIC/ENCODER

34 NAVIGATION CONT'D

3417 AIR DATA COMPUTER
3418 STALL WARNING SYSTEM
3420 ATTITUDE AND DIRECTION DATA SYSTEM
3421 ATTITUDE GYRO & IND. SYSTEM
3422 DIRECTIONAL GYRO & IND. SYSTEM
3423 MAGNETIC COMPASS
3424 TURN & BANK/RATE OF TURN INDICATOR
3425 INTEGRATED FLT. DIRECTOR SYSTEM
3430 LANDING & TAXI AIDS
3431 LOCALIZER/VOR SYSTEM
3432 GLIDE SLOPE SYSTEM
3433 MICROWAVE LANDING SYSTEM
3434 MARKER BEACON SYSTEM
3435 HEADS UP DISPLAY SYSTEM
3436 WIND SHEAR DETECTION SYSTEM
3440 INDEPENDENT POS. DETERMINING SYSTEM
3441 INERTIAL GUIDANCE SYSTEM
3442 WEATHER RADAR SYSTEM
3443 DOPPLER SYSTEM
3444 GROUND PROXIMITY SYSTEM
3445 AIR COLLISION AVOIDANCE SYSTEM (TCAS)
3446 NON RADAR WEATHER SYSTEM
3450 DEPENDENT POSITION DETERMINING SYSTEM
3451 DME/TACAN SYSTEM
3452 ATC TRANSPONDER SYSTEM
3453 LORAN SYSTEM
3454 VOR SYSTEM
3455 ADF SYSTEM
3456 OMEGA NAVIGATION SYSTEM
3457 GLOBAL POSITIONING SYSTEM
3460 FLIGHT MANAGE. COMPUTING SYSTEM

35 OXYGEN

3500 OXYGEN SYSTEM
3510 CREW OXYGEN SYSTEM
3520 PASSENGER OXYGEN SYSTEM
3530 PORTABLE OXYGEN SYSTEM

36 PNEUMATIC

3600 PNEUMATIC SYSTEM
3610 PNEUMATIC DISTRIBUTION SYSTEM
3620 PNEUMATIC INDICATING SYSTEM

37 VACUUM

3700 VACUUM SYSTEM
3710 VACUUM DISTRIBUTION SYSTEM
3720 VACUUM INDICATING SYSTEM

38 WATER/WASTE

3800 WATER & WASTE SYSTEM
3810 POTABLE WATER SYSTEM
3820 WASH WATER SYSTEM
3830 WASTE DISPOSAL SYSTEM
3840 AIR SUPPLY (WATER PRESS. SYSTEM)

45 CENTRAL MAINT. SYSTEM

4500 CENTRAL MAINT. COMPUTER

49 AIRBORNE AUXILIARY POWER

4900 AIRBORNE APU SYSTEM
4910 APU COWLING/CONTAINMENT
4920 APU CORE ENGINE
4930 APU ENGINE FUEL & CONTROL
4940 APU START/IGNITION SYSTEM
4950 APU BLEED AIR SYSTEM
4960 APU CONTROLS
4970 APU INDICATING SYSTEM
4980 APU EXHAUST SYSTEM
4990 APU OIL SYSTEM

51 STANDARD PRACTICES/STRUCTURES

5100 STANDARD PRACTICES/STRUCTURES
5101 AIRCRAFT STRUCTURES
5102 BALLOON REPORTS

52 DOORS

5200 DOORS
5210 PASSENGER/CREW DOORS
5220 EMERGENCY EXIT
5230 CARGO/BAGGAGE DOORS
5240 SERVICE DOORS
5241 GALLEY DOORS
5242 E/E COMPARTMENT DOORS
5243 HYDRAULIC COMPARTMENT DOORS
5244 ACCESSORY COMPARTMENT DOORS
5245 AIR CONDITIONING COMPART. DOORS
5246 FLUID SERVICE DOORS
5247 APU DOORS
5248 TAIL CONE DOORS
5250 FIXED INNER DOORS
5260 ENTRANCE STAIRS
5270 DOOR WARNING SYSTEM
5280 LANDING GEAR DOORS

53 FUSELAGE

5300 FUSELAGE STRUCTURE (GENERAL)
5301 AERIAL TOW EQUIPMENT
5302 ROTORCRAFT TAIL BOOM
5310 FUSELAGE MAIN STRUCTURE
5311 FUSELAGE MAIN FRAME
5312 FUSELAGE MAIN BULKHEAD
5313 FUSELAGE MAIN LONGERON/STRINGER
5314 FUSELAGE MAIN KEEL
5315 FUSELAGE MAIN FLOOR BEAM
5320 FUSELAGE MISCELLANEOUS STRUCTURE
5321 FUSELAGE FLOOR PANEL
5322 FUSELAGE INTERNAL MOUNT STRUCTURE
5323 FUSELAGE INTERNAL STAIRS
5324 FUSELAGE FIXED PARTITIONS
5330 FUSELAGE MAIN PLATE/SKIN
5340 FUSELAGE MAIN ATTACH FITTINGS
5341 WING ATTACH FITTINGS (ON FUSELAGE)
5342 STABILIZER ATTACH FITTINGS
5343 LANDING GEAR ATTACH FITTINGS
5344 FUSELAGE DOOR HINGES
5345 FUSELAGE EQUIPMENT ATTACH FITTINGS
5346 POWERPLANT ATTACH FITTINGS
5347 SEAT/CARGO ATTACH FITTINGS
5350 FUSELAGE AERODYNAMIC FAIRINGS

54 NACELLES/PYLONS

5400 NACELLE/PYLON STRUCTURE
5410 MAIN FRAME (ON NACELLE/PYLON)
5411 FRAME/SPAR/RIB(NACELLE/PYLON)
5412 BULKHEAD/FIREWALL (NAC/PYLON)
5413 LONGERON/STRINGER (NAC/PYLON)
5414 PLATE SKIN (NAC/PYLONS)
5415 ATTACH FITTINGS (NAC/PYLON)

55 STABILIZERS

5500 EMPENNAGE STRUCTURE
5510 HORIZONTAL STABILIZER STRUCTURE
5511 HORIZONTAL STABILIZER SPAR/RIB
5512 HORIZONTAL STABILIZER PLATE/SKIN
5513 HORIZONTAL STABILIZER TAB STRUCTURE
5520 ELEVATOR STRUCTURE

55 STABILIZERS CONT'D

5521 ELEVATOR SPAR/RIB STRUCTURE
5522 ELEVATOR PLATES/SKIN STRUCTURE
5523 ELEVATOR TAB STRUCTURE
5530 VERTICAL STABILIZER STRUCTURE
5531 VERTICAL STABILIZER SPAR/RIB STRUCTURE
5532 VERTICAL STABILIZER PLATES/SKIN
5533 VENTRAL STRUCTURE (ON VERT. STAB)
5540 RUDDER STRUCTURE
5541 RUDDER SPAR/RIB STRUCTURE
5542 RUDDER PLATE/SKIN STRUCTURE
5543 RUDDER TAB STRUCTURE
5550 EMPENNAGE FLT. CONT. ATTACH FITTING
5551 HORIZONTAL STABILIZER ATTACH FITTING
5552 ELEVATOR/TAB ATTACH FITTINGS
5553 VERT. STAB. ATTACH FITTINGS
5554 RUDDER/TAB ATTACH FITTINGS

56 WINDOWS

5600 WINDOW/WINDSHIELD SYSTEM
5610 FLIGHT COMPARTMENT WINDOWS
5620 PASSENGER COMPARTMENT WINDOWS
5630 DOOR WINDOWS
5640 INSPECTION WINDOWS

57 WINGS

5700 WING STRUCTURE
5710 WING MAIN FRAME STRUCTURE
5711 WING SPAR STRUCTURE
5712 WING RIB STRUCTURE
5713 WING LONGERON/STRINGER
5714 WING CENTER BOX
5720 WING MISCELLANEOUS STRUCTURE
5730 WING PLATES/SKINS
5740 WING ATTACH FITTINGS
5741 WING, FUSELAGE ATTACH FITTINGS
5742 WING, NAC/PYLON ATTACH FITTINGS
5743 WING, LANDING GEAR ATTACH FITTINGS
5744 CONTROL SURFACE ATTACH FITTINGS
5750 WING CONTROL SURFACE STRUCTURE
5751 AILERON STRUCTURE
5752 AILERON TAB STRUCTURE
5753 TE FLAP STRUCTURE
5754 LEADING EDGE DEVICE STRUCTURE
5755 SPOILER STRUCTURE

61 PROPELLERS/PROPULSORS

6100 PROPELLER SYSTEM
6110 PROPELLER ASSEMBLY
6111 PROPELLER BLADE SECTION
6112 PROPELLER DE-ICE BOOT SECTION
6113 PROPELLER SPINNER SECTION
6114 PROPELLER HUB SECTION
6120 PROPELLER CONTROL SYSTEM
6121 PROPELLER SYNCHRONIZER SECTION
6122 PROPELLER GOVERNOR
6123 PROPELLER FEATHERING/REVERSING
6130 PROPELLER BRAKING
6140 PROPELLER INDICATING SYSTEM

62 MAIN ROTOR

6200 MAIN ROTOR SYSTEM
6210 MAIN ROTOR BLADES
6220 MAIN ROTOR HEAD
6230 MAIN ROTOR MAST/SWASHPLATE
6240 MAIN ROTOR INDICATING SYSTEM

63 MAIN ROTOR DRIVE

6300 MAIN ROTOR DRIVE SYSTEM
6310 ENGINE/TRANSMISSION COUPLING
6320 MAIN ROTOR GEARBOX
6321 MAIN ROTOR BRAKE
6322 ROTORCRAFT COOLING FAN SYSTEM
6330 MAIN ROTOR TRANSMISSION MOUNT
6340 ROTOR DRIVE INDICATING SYSTEM

64 TAIL ROTOR

6400 TAIL ROTOR SYSTEM
6410 TAIL ROTOR BLADE
6420 TAIL ROTOR HEAD
6440 TAIL ROTOR INDICATING SYSTEM

65 TAIL ROTOR DRIVE

6500 TAIL ROTOR DRIVE SYSTEM
6510 TAIL ROTOR DRIVE SHAFT
6520 TAIL ROTOR GEARBOX
6540 TAIL ROTOR DRIVE INDICATING SYSTEM

67 ROTORS FLIGHT CONTROL

6700 ROTORCRAFT FLIGHT CONTROL
6710 MAIN ROTOR CONTROL
6711 TILT ROTOR FLIGHT CONTROL
6720 TAIL ROTOR CONTROL SYSTEM
6730 ROTORCRAFT SERVO SYSTEM

71 POWERPLANT

7100 POWERPLANT SYSTEM
7110 ENGINE COWLING SYSTEM
7111 COWL FLAP SYSTEM
7112 ENGINE AIR BAFFLE SECTION
7120 ENGINE MOUNT SECTION
7130 ENGINE FIRESEALS
7160 ENGINE AIR INTAKE SYSTEM
7170 ENGINE DRAINS

72 TURBINE/TURBOPROP ENGINE

7200 ENGINE (TURBINE/TURBOPROP)
7210 TURBINE ENGINE REDUCTION GEAR
7220 TURBINE ENGINE AIR INLET SECTION
7230 TURBINE ENGINE COMPRESSOR SECTION
7240 TURBINE ENGINE COMBUSTION SECTION
7250 TURBINE SECTION
7260 TURBINE ENGINE ACCESSORY DRIVE
7261 TURBINE ENGINE OIL SYSTEM
7270 TURBINE ENGINE BYPASS SECTION

73 ENGINE FUEL & CONTROL

7300 ENGINE FUEL & CONTROL
7310 ENGINE FUEL DISTRIBUTION
7311 ENGINE FUEL-OIL COOLER
7312 FUEL HEATER
7313 FUEL INJECTOR NOZZLE
7314 ENGINE FUEL PUMP
7320 FUEL CONTROLLING SYSTEM
7321 FUEL CONTROL/ELECTRONIC
7322 FUEL CONTROL/CARBURETOR
7323 TURBINE GOVERNOR
7324 FUEL DIVIDER
7330 ENGINE FUEL INDICATING SYSTEM
7331 FUEL FLOW INDICATING
7332 FUEL PRESSURE INDICATING
7333 FUEL FLOW SENSOR
7334 FUEL PRESSURE SENSOR

74 IGNITION

7400 IGNITION SYSTEM
7410 IGNITION POWER SUPPLY
7411 LOW TENSION COIL
7412 EXCITER
7413 INDUCTION VIBRATOR
7414 MAGNETO/DISTRIBUTOR
7420 IGNITION HARNESS (DISTRIBUTION)
7421 SPARK PLUG/IGNITER
7430 IGNITION SWITCHING

75 AIR

7500 ENGINE BLEED AIR SYSTEM
7510 ENGINE ANTI-ICING SYSTEM
7520 ENGINE COOLING SYSTEM
7530 COMPRESSOR BLEED CONTROL
7531 COMPRESSOR BLEED GOVERNOR
7532 COMPRESSOR BLEED VALVE
7540 BLEED AIR INDICATING SYSTEM

76 ENGINE CONTROLS

7600 ENGINE CONTROLS
7601 ENGINE SYNCHRONIZING
7602 MIXTURE CONTROL
7603 POWER LEVER
7620 ENGINE EMERGENCY SHUTDOWN SYSTEM

77 ENGINE INDICATING

7700 ENGINE INDICATING SYSTEM
7710 POWER INDICATING SYSTEM
7711 ENGINE PRESSURE RATIO (EPR)
7712 ENGINE BMEP/TORQUE INDICATING
7713 MANIFOLD PRESSURE (MP) INDICATING
7714 ENGINE RPM INDICATING SYSTEM
7720 ENGINE TEMP. INDICATING SYSTEM
7721 CYLINDER HEAD TEMP (CHT) INDICATING
7722 ENG. EGT/TIT INDICATING SYSTEM
7730 ENGINE IGNITION ANALYZER SYSTEM
7731 ENGINE IGNITION ANALYZER
7732 ENGINE VIBRATION ANALYZER
7740 ENGINE INTEGRATED INSTRUMENT SYSTEM

78 ENGINE EXHAUST

7800 ENGINE EXHAUST SYSTEM
7810 ENGINE COLLECTOR/TAILPIPE/NOZZLE
7820 ENGINE NOISE SUPPRESSOR
7830 THRUST REVERSER

79 ENGINE OIL

7900 ENGINE OIL SYSTEM (AIRFRAME)
7910 ENGINE OIL STORAGE (AIRFRAME)
7920 ENGINE OIL DISTRIBUTION (AIRFRAME)
7921 ENGINE OIL COOLER
7922 ENGINE OIL TEMP. REGULATOR
7923 OIL SHUTOFF VALVE
7930 ENGINE OIL INDICATING SYSTEM
7931 ENGINE OIL PRESSURE
7932 ENGINE OIL QUANTITY
7933 ENGINE OIL TEMPERATURE

80 STARTING

8000 ENGINE STARTING SYSTEM
8010 ENGINE CRANKING
8011 ENGINE STARTER
8012 ENGINE START VALVES/CONTROLS

81 TURBOCHARGING

8100 EXHAUST TURBINE SYSTEM (RECIP)
8110 POWER RECOVERY TURBINE (RECIP)
8120 EXHAUST TURBOCHARGER

82 WATER INJECTION

8200 WATER INJECTION SYSTEM

83 ACCESSORY GEARBOXES

8300 ACCESSORY GEARBOXES

85 RECIPROCATING ENGINE

8500 ENGINE (RECIPROCATING)
8510 RECIPROCATING ENGINE FRONT SECTION
8520 RECIPROCATING ENGINE POWER SECTION
8530 RECIPROCATING ENGINE CYLINDER SECTION
8540 RECIPROCATING ENGINE REAR SECTION
8550 RECIPROCATING ENGINE OIL SYSTEM

MECHANICS CREED

UPON MY HONOR I swear that I shall hold in sacred trust the rights and privileges conferred upon me as a certified mechanic. Knowing full well that the safety and lives of others are dependent upon my skill and judgment, I shall never knowingly subject others to risks which I would not be willing to assume for myself, or for those dear to me.

IN DISCHARGING this trust, I pledge myself never to undertake work or approve work which I feel to be beyond the limits of my knowledge; nor shall I allow any non-certificated superior to persuade me to approve aircraft or equipment as airworthy against my better judgment; nor shall I permit my judgment to be influenced by money or other personal gain; nor shall I pass as airworthy aircraft or equipment about which I am in doubt, either as a result of direct inspection or uncertainty regarding the ability of others who have worked on it to accomplish their work satisfactorily.

I REALIZE the grave responsibility which is mine as a certified airman, to exercise my judgment on the airworthiness of aircraft and equipment. I, therefore, pledge unyielding adherence to these precepts for the advancement of aviation and for the dignity of my vocation.